

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 190711

Grade 3 - 6.9 - 3.6

Statistical Summary

Methods: 157

Labs Reporting: 96

Issue Date : 08/31/2019

Method Code	Analyte & Method Sample # 190711	# 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
001.10	Ammoniacal N, Magnesium Oxide Method (%)	2	2	1.708	0.0035								
001.99	Ammoniacal N, Other (%)	5	5	1.975	0.1692	1.975		0.1692	0.0946	8.57%		0.0716	3.61%
003.10	Water Insoluble N, Method I (%)	1		1.710									
005.99	Urea N, Other (%)	1		1.765									
009.10	Ammoniacal Plus Nitrate N, Devarda (%)	1		4.780									
010.11	Total N, Modified Comprehensive (3%)	8	8	3.977	1.474	3.977	0.4900	1.672	0.7390	42.04%	7.95	0.0868	3.25%
010.12	Total N, Salicylic (3%)	1		3.590									
010.16	Total N, Raney (3%)	1		3.564									
010.17	Total N, Comprehensive (3%)	1		4.303									
010.60	Total N, Combustion (3%)	58	57	3.658	0.1015	3.655	0.4900	0.0875	0.0145	2.39%	0.42	0.0373	3.29%
010.99	Total N, Other (3%)	17	16	3.852	1.072	3.590	0.4900	0.6162	0.1926	17.16%	2.93	0.0802	3.30%
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	2	2	5.195	0.0636								
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	19	18	4.986	1.512	5.333		0.8880	0.2616	16.65%		0.0882	3.11%
020.40	Total P2O5, Automated (%)	3	3	5.762	0.3615	5.762		0.3615	0.2609	6.27%		0.2767	3.07%
020.50	Total P2O5, ICP (%)	26	26	5.273	1.579	5.186		0.6492	0.1591	12.52%		0.0811	3.12%
020.99	Total P2O5, Other (%)	4	4	7.728	4.857	7.728		4.857	3.036	62.86%		0.6510	2.94%
030.40	Citrate Insoluble P2O5, Automated, test portion 963.03 A-B (%)	1		0.3300									
040.40	Indirect Available P2O5, Automated (6.9%)	1		5.375									
041.10	Direct Available P2O5, Gravimetric Quinolinium (6.9%)	5	5	5.029	0.5262	5.029	0.6700	0.5262	0.2942	10.46%	1.83	0.1339	3.14%
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext.... (6.9%)	4	4	4.925	0.0937	4.925	0.6700	0.0937	0.0586	1.90%	0.33	0.0595	3.15%
041.20	Direct Available P2O5, Spectrophotometric (6.9%)	1		4.505									
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6.9%)	3	3	4.955	0.2762	4.955	0.6700	0.2762	0.1993	5.57%	0.96	0.0300	3.14%
041.40	Direct Available P2O5, Automated (6.9%)	2	2	5.168	0.6541								
041.50	Direct Available P2O5, ICP (6.9%)	5	5	4.903	0.5564	4.903	0.6700	0.5564	0.3111	11.35%	1.94	0.0408	3.15%
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6.9%)	5	5	4.559	1.004	4.559	0.6700	1.004	0.5611	22.02%	3.49	0.0792	3.18%
041.60	Direct Available P2O5, Citrate-EDTA Ext. (6.9%)	8	8	5.185	0.7064	5.185	0.6700	0.8011	0.3540	15.45%	2.79	0.0852	3.12%
041.99	Direct Available P2O5, Other (6.9%)	8	8	5.958	1.800	6.296	0.6730	1.137	0.5026	18.06%	3.94	0.1125	3.03%
042.10	Water Soluble OrthoP As P2O5, Spectrophotometric (%)	1		5.077									
048.20	Water Soluble P2O5, Spectrophotometric (%)	1		2.100									
048.40	Water Soluble P2O5, Automated (%)	1		1.385									
048.50	Water Soluble P2O5, ICP (%)	1		1.635									
048.99	Water Soluble P2O5, Other (%)	1		6.360									
050.00	Soluble K2O, STPB Oxalate (3.6%)	7	7	4.357	0.3201	4.337	0.4167	0.3166	0.1496	7.30%	1.77	0.1286	3.21%

Method Code	Analyte & Method Sample # 190711	# 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
050.10	Soluble K2O, STPB Citrate (3.6%)	1		3.650									
050.30	Soluble K2O, AA (Oxalate) (3.6%)	2	2	3.998	0.4632								
050.31	Soluble K2O, AA (Citrate) (3.6%)	1		4.040									
050.50	Soluble K2O, ICP (Oxalate) (3.6%)	7	7	4.540	0.2396	4.540	0.4208	0.2717	0.1284	5.99%	1.50	0.0950	3.19%
050.51	Soluble K2O, ICP (Citrate) (3.6%)	8	8	4.508	0.5577	4.508	0.4202	0.6324	0.2795	14.03%	3.51	0.0850	3.19%
050.52	Soluble K2O, ICP (Citrate-EDTA) (3.6%)	6	5	4.584	0.0934	4.584	0.4217	0.0934	0.0522	2.04%	0.52	0.0360	3.18%
050.60	Soluble K2O, Flame Photometric (Oxalate) (3.6%)	4	4	4.352	0.1099	4.352	0.4170	0.1099	0.0687	2.53%	0.61	0.0723	3.21%
050.61	Soluble K2O, Flame Photometric (Citrate) (3.6%)	2	2	4.253	0.2864								
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (3.6%)	8	8	4.553	0.2419	4.581	0.4216	0.2050	0.0906	4.47%	1.13	0.0626	3.18%
050.99	Soluble K2O, Other (3.6%)	35	34	4.249	0.4978	4.244	0.4149	0.5525	0.1184	13.02%	3.10	0.0911	3.22%
060.00	Water (Free), Vacuum Oven (%)	4	4	2.361	1.337	2.361		1.337	0.8358	56.64%		0.0548	3.51%
060.99	Water (Free), Other (%)	1		3.218									
101.00	Acid Soluble Ca, AA, inorganic 965.09 (2%)	9	9	3.610	1.404	3.878	0.3939	0.9317	0.3882	24.03%	5.51	0.1414	3.26%
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual acid (2%)	1		4.425									
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	19	19	4.279	0.7433	4.332	0.4166	0.2930	0.0840	6.76%	1.64	0.0929	3.21%
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (2%)	4	4	4.356	0.1129	4.356	0.4178	0.1129	0.0706	2.59%	0.63	0.0338	3.21%
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	14	14	4.138	0.5444	4.238	0.4119	0.2838	0.0948	6.70%	1.61	0.0850	3.22%
101.70	Acid Soluble Ca, Titrimetric (2%)	2	2	4.500	0.9542								
101.99	Acid Soluble Ca, Other (2%)	12	12	3.860	0.6388	3.974	0.3987	0.3423	0.1235	8.61%	2.00	0.0870	3.25%
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.7%)	9	9	1.748	0.1265	1.748	0.2874	0.1435	0.0598	8.21%	1.16	0.0541	3.68%
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid ... (1.7%)	4	4	1.607	0.1998	1.607	0.2804	0.1998	0.1249	12.43%	1.66	0.1137	3.72%
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	19	18	1.781	0.1529	1.757	0.2879	0.1023	0.0302	5.82%	0.83	0.0213	3.67%
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1.7%)	3	3	1.702	0.0555	1.702	0.2851	0.0555	0.0400	3.26%	0.45	0.0020	3.69%
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	13	12	1.682	0.0833	1.684	0.2842	0.0697	0.0252	4.14%	0.57	0.0366	3.70%
121.99	Acid Soluble Mg, Other (1.7%)	15	15	1.774	0.3878	1.695	0.2848	0.1218	0.0393	7.19%	1.00	0.0748	3.69%
131.00	Water Soluble Mg, AA (%)	1		1.170									
131.30	Water Soluble Mg, ICP (%)	2	2	1.248	0.0884								
131.70	Water Soluble Mg, Titrimetric (EDTA) (%)	1		2.360									
143.00	Elemental S, Gravimetric Sulfur - carbon disulfide soluble sulfur (%)	1		0.3800									
143.99	Elemental S, Other (%)	6	6	7.477	0.5906	7.477		0.6698	0.3418	8.96%		0.0770	2.95%
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	8	8	6.828	1.602	7.018		0.5034	0.2225	7.17%		0.1146	2.98%
145.99	Sulfate S, HCl soluble, Other (%)	1		6.435									
148.00	Total S, Combustion (7%)	7	7	7.518	0.2174	7.491	0.5746	0.1802	0.0851	2.41%	0.73	0.0610	2.95%
148.01	Total S, Gravimetric - sulfate and elemental (7%)	11	11	6.747	1.327	7.063	0.5531	0.4597	0.1732	6.51%	1.94	0.1053	2.98%
148.07	Total S, ICP, test portion as in 2017.02 (7%)	15	14	7.544	0.5139	7.532	0.5766	0.4120	0.1376	5.47%	1.66	0.1351	2.95%
148.99	Total S, Other (7%)	14	14	7.125	1.018	7.266	0.5633	0.7285	0.2434	10.03%	3.01	0.0998	2.97%
149.04	S - HNO3 soluble, ICP (%)	2	2	7.444	0.6498								
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	1		1.300									
151.30	Acid Soluble As, ICP (ppm)	6	5	2.638	0.9705	2.638		0.9705	0.5425	36.79%		0.2102	13.82%
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	1		4.000									
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	6	3	1.930	0.3749	1.930		0.3749	0.2706	19.43%		0.1035	14.49%
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	2	1	3.325									
151.99	Acid Soluble As, Other (ppm)	4	3	1.618	0.4688	1.618		0.4688	0.3384	28.97%		0.0100	14.88%
165.00	Acid Soluble B, Spectrophotometric (1.5%)	11	11	1.308	0.6917	1.131	0.1726	0.1824	0.0687	16.13%	2.46	0.0569	3.93%

Method Code	Analyte & Method Sample # 190711	# 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
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	11	10	1.009	0.1070	1.004	0.1536	0.0663	0.0262	6.60%	1.01	0.0159	4.00%
165.99	Acid Soluble B, Other (1.5%)	23	21	0.9538	0.2453	0.9829	0.1504	0.0925	0.0252	9.41%	1.43	0.0132	4.01%
171.00	Water Soluble B, AA, JAOAC 52.950 (%)	1		0.9550									
171.10	Water Soluble B, Spectrophotometric (%)	5	5	0.9840	0.3311	0.9840		0.3311	0.1851	33.65%		0.0400	4.01%
171.99	Water Soluble B, Other (%)	3	3	1.028	0.3779	1.028		0.3779	0.2728	36.78%		0.0260	3.98%
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.8500									
181.30	Acid Soluble Cd, ICP (ppm)	8	7	0.6159	0.2233	0.5674		0.1253	0.0592	22.08%		0.0630	17.42%
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	1		0.5000									
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	5	2	0.5203	0.0268	0.5203		0.0268	0.0237	5.16%		0.0098	17.65%
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	2	1	0.2126									
181.99	Acid Soluble Cd, Other (ppm)	4	2	0.5175	0.1025	0.5175		0.1025	0.0906	19.81%		0.0150	17.66%
191.30	Acid Soluble Cr, ICP (ppm)	8	6	23.15	6.495	23.59		6.314	3.222	26.77%		1.185	9.94%
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	1		29.07									
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	5	5	36.25	5.749	36.25		5.749	3.214	15.86%		3.319	9.32%
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	2	2	28.70	8.440								
191.99	Acid Soluble Cr, Other (ppm)	4	4	22.38	6.775	22.38		6.775	4.235	30.28%		0.9050	10.02%
202.00	Acid Soluble Co, AA, test portion 2006.03 modified w/dual acid (ppm)	1		2.000									
202.30	Acid Soluble Co, ICP (ppm)	7	6	16.44	1.246	16.44	5.9325	1.413	0.7208	8.59%	0.55	0.9895	10.50%
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	1		21.14									
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	8	8	20.85	3.574	21.51	7.4534	2.289	1.011	10.64%	0.72	1.003	10.08%
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	2	2	17.87	2.188								
202.99	Acid Soluble Co, Other (ppm)	5	5	15.52	5.770	15.52	5.6556	5.770	3.226	37.18%	2.38	0.4604	10.59%
221.00	Acid Soluble Cu, AA, inorganic 965.09 (1%)	10	10	0.7569	0.0290	0.7553	0.0805	0.0291	0.0115	3.86%	0.84	0.0189	4.17%
221.03	Acid Soluble Cu, AA, 965.09, test portion 2006.03A-C w/dual acid (1%)	2	2	0.6617	0.1525								
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	20	20	0.7662	0.0791	0.7629	0.0813	0.0730	0.0204	9.57%	2.09	0.0254	4.17%
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (1%)	3	3	0.7936	0.0644	0.7936	0.0844	0.0644	0.0465	8.12%	1.78	0.0024	4.14%
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	12	11	0.7574	0.0527	0.7593	0.0809	0.0554	0.0209	7.29%	1.59	0.0140	4.17%
221.99	Acid Soluble Cu, Other (1%)	14	14	0.7973	0.0921	0.7872	0.0837	0.0812	0.0271	10.32%	2.26	0.0235	4.15%
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	11	11	0.9404	0.1095	0.9627	0.1013	0.0566	0.0213	5.88%	1.30	0.0283	4.02%
241.03	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C w/dual acid (1%)	3	3	0.8729	0.0714	0.8729	0.0923	0.0714	0.0515	8.18%	1.80	0.0249	4.08%
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	20	20	0.9473	0.0825	0.9449	0.0995	0.0570	0.0159	6.03%	1.33	0.0206	4.03%
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (1%)	3	3	0.9659	0.0629	0.9659	0.1016	0.0629	0.0454	6.51%	1.44	0.0010	4.02%
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	14	13	0.9121	0.0643	0.9158	0.0966	0.0537	0.0186	5.87%	1.30	0.0174	4.05%
241.99	Acid Soluble Fe, Other (1%)	14	14	0.9247	0.0803	0.9247	0.0975	0.0910	0.0304	9.84%	2.18	0.0226	4.05%
251.30	Acid Soluble Pb, ICP (ppm)	9	7	4.311	3.091	4.311		3.506	1.656	81.33%		0.2508	12.84%
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	1		10.00									
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	5	3	2.684	0.9021	2.684		0.9021	0.6511	33.61%		1.044	13.79%
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	2	1	1.883									
251.99	Acid Soluble Pb, Other (ppm)	4	3	1.957	0.1882	1.957		0.1882	0.1358	9.62%		0.1533	14.46%
261.00	Acid Soluble Mn, AA, Mn2+ only (1.5%)	1		1.558									
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1.5%)	10	10	1.089	0.0757	1.089	0.1139	0.0851	0.0337	7.82%	1.74	0.0343	3.95%
261.15	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C w/dual acid ... (1.5%)	2	2	0.9861	0.4213								
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1.5%)	8	8	1.150	0.0815	1.143	0.1193	0.0734	0.0324	6.42%	1.43	0.0404	3.92%
261.31	Acid Soluble Mn, ICP, test portion 972.02b (1.5%)	4	4	1.160	0.0654	1.160	0.1210	0.0654	0.0408	5.63%	1.26	0.0428	3.91%

Method Code	Analyte & Method Sample # 190711	# 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
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1.5%)	6	6	1.159	0.1561	1.159	0.1209	0.1770	0.0903	15.28%	3.41	0.0212	3.91%
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (1.5%)	2	2	1.258	0.2374								
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	14	13	1.104	0.1098	1.100	0.1150	0.0621	0.0215	5.65%	1.26	0.0250	3.94%
261.99	Acid Soluble Mn, Other (1.5%)	15	15	1.135	0.2227	1.141	0.1191	0.1656	0.0534	14.51%	3.24	0.0309	3.92%
271.00	Water Soluble Mn, AA (%)	1		0.8845									
271.30	Water Soluble Mn, ICP, Ext. 972.03 (%)	1		0.5850									
281.00	Acid Soluble Hg, AA (ppm)	1		0.2000									
281.30	Acid Soluble Hg, ICP (ppm)	3	0	0.0000		1.141		0.1656		14.51%		0.0000	15.68%
281.99	Acid Soluble Hg, Other (ppm)	6	3	7.917	13.67	7.917		13.67	9.865	172.66%		0.0715	11.72%
289.30	Acid Soluble Mo, ICP (ppm)	7	5	5.465	1.851	5.465	2.6395	1.851	1.035	33.87%	1.63	0.9264	12.39%
289.32	Acid Soluble Mo, ICP, 2006.03 (ppm)	1		5.974									
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	7	6	5.359	2.691	6.066	2.8197	1.216	0.6205	20.05%	1.00	0.3718	12.20%
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	2	2	4.496	0.0171								
289.99	Acid Soluble Mo, Other (ppm)	3	2	5.395	0.5233	5.395	2.6185	0.5233	0.4625	9.70%	0.47	0.2600	12.41%
291.00	Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid (ppm)	1		24.00									
291.30	Acid Soluble Ni, ICP (ppm)	7	6	18.67	5.126	18.67		5.813	2.966	31.13%		2.253	10.30%
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	1		23.10									
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	6	6	25.45	1.041	25.45		1.181	0.6025	4.64%		1.834	9.83%
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	2	2	22.42	1.144								
291.99	Acid Soluble Ni, Other (ppm)	5	5	33.14	28.25	33.14		28.25	15.79	85.24%		2.106	9.45%
301.30	Acid Soluble Se, ICP (ppm)	3	2	5.754	1.568	5.754		1.568	1.386	27.25%		0.1275	12.29%
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	1		3.627									
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	4	3	7.542	4.698	7.542		4.698	3.391	62.29%		0.8714	11.80%
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	2	0	0.0000									
301.99	Acid Soluble Se, Other (ppm)	4	3	3.274	1.722	3.274		1.722	1.243	52.61%		0.1653	13.38%
311.32	Sodium, ICP, 2006.03 test portion (%)	1		1.612									
311.33	Sodium, ICP, test portion as in 2017.02 (%)	5	5	1.441	0.0854	1.441	0.1491	0.0854	0.0478	5.93%	1.34	0.0330	3.79%
311.99	Sodium, Other (%)	2	2	1.490	0.0071								
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	12	12	1.522	0.2416	1.495	0.1545	0.2148	0.0775	14.37%	3.24	0.0428	3.76%
321.03	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C w/dual acid (2%)	2	2	1.338	0.1158								
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	20	19	1.471	0.0863	1.465	0.1515	0.0763	0.0219	5.21%	1.17	0.0262	3.78%
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (2%)	3	3	1.604	0.3318	1.604	0.1654	0.3318	0.2395	20.68%	4.67	0.0080	3.73%
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	14	13	1.387	0.1473	1.404	0.1454	0.1193	0.0414	8.50%	1.91	0.0368	3.80%
321.99	Acid Soluble Zn, Other (2%)	12	11	1.458	0.1859	1.432	0.1482	0.1210	0.0456	8.45%	1.90	0.0453	3.79%
325.00	Water Soluble Zn, AA (%)	2	2	1.405	0.8623								
325.30	Water Soluble Zn, ICP (%)	2	2	1.013	1.142								

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 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 # 190711

Method Precision Report

Grade 3 - 6.9 - 3.6

Issue Date : 08/31/2019

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
010.11	Total N, Modified Comprehensive (3%)	8	8	3.977	1.474	1.474	0.0739	1.475	37.05%	1.86%	37.10%	19.96
010.60	Total N, Combustion (3%)	58	54	3.659	0.0833	0.0804	0.0310	0.0862	2.20%	0.85%	2.36%	2.783
010.99	Total N, Other (3%)	17	16	3.852	1.072	1.071	0.0705	1.074	27.81%	1.83%	27.87%	15.23
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	19	17	5.215	1.196	1.194	0.0994	1.198	22.90%	1.91%	22.98%	12.06
020.50	Total P2O5, ICP (%)	26	23	5.167	0.6350	0.6328	0.0740	0.6371	12.25%	1.43%	12.33%	8.608
041.60	Direct Available P2O5, Citrate-EDTA Ext. (6.9%)	8	8	5.185	0.7064	0.7043	0.0771	0.7085	13.58%	1.49%	13.67%	9.191
050.51	Soluble K2O, ICP (Citrate) (3.6%)	8	8	4.508	0.5577	0.5540	0.0898	0.5613	12.29%	1.99%	12.45%	6.249
050.99	Soluble K2O, Other (3.6%)	35	33	4.234	0.4972	0.4940	0.0800	0.5004	11.67%	1.89%	11.82%	6.256
101.00	Acid Soluble Ca, AA, inorganic 965.09 (2%)	9	8	4.005	0.8041	0.7980	0.1394	0.8101	19.92%	3.48%	20.23%	5.810
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	19	17	4.414	0.5170	0.5143	0.0749	0.5197	11.65%	1.70%	11.77%	6.938
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	14	13	4.271	0.2271	0.2195	0.0825	0.2345	5.14%	1.93%	5.49%	2.843
101.99	Acid Soluble Ca, Other (2%)	12	10	3.974	0.2298	0.2255	0.0631	0.2341	5.67%	1.59%	5.89%	3.712
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.7%)	9	8	1.755	0.1331	0.1310	0.0335	0.1352	7.46%	1.91%	7.70%	4.036
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	19	17	1.752	0.0965	0.0956	0.0188	0.0974	5.46%	1.07%	5.56%	5.186
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	13	12	1.682	0.0832	0.0801	0.0323	0.0863	4.76%	1.92%	5.13%	2.676
121.99	Acid Soluble Mg, Other (1.7%)	15	13	1.666	0.1024	0.0974	0.0446	0.1072	5.85%	2.68%	6.43%	2.403
148.01	Total S, Gravimetric - sulfate and elemental (7%)	11	10	7.134	0.3576	0.3521	0.0882	0.3630	4.94%	1.24%	5.09%	4.117
148.07	Total S, ICP, test portion as in 2017.02 (7%)	15	12	7.438	0.4128	0.4096	0.0723	0.4160	5.51%	0.97%	5.59%	5.755
148.99	Total S, Other (7%)	14	13	7.352	0.5870	0.5842	0.0812	0.5898	7.95%	1.10%	8.02%	7.263
165.00	Acid Soluble B, Spectrophotometric (1.5%)	11	10	1.104	0.1400	0.1355	0.0497	0.1443	12.28%	4.50%	13.08%	2.904
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	11	10	1.009	0.1070	0.1062	0.0191	0.1079	10.53%	1.90%	10.70%	5.640
165.99	Acid Soluble B, Other (1.5%)	23	19	1.006	0.1158	0.1156	0.0092	0.1160	11.49%	0.92%	11.53%	12.54
221.00	Acid Soluble Cu, AA, inorganic 965.09 (1%)	10	10	0.7569	0.0290	0.0267	0.0159	0.0311	3.53%	2.10%	4.11%	1.959
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	20	19	0.7661	0.0812	0.0796	0.0228	0.0828	10.39%	2.97%	10.81%	3.638
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	12	10	0.7517	0.0518	0.0514	0.0093	0.0522	6.84%	1.24%	6.95%	5.607
221.99	Acid Soluble Cu, Other (1%)	14	14	0.7973	0.0920	0.0908	0.0212	0.0933	11.39%	2.66%	11.70%	4.393
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	11	10	0.9709	0.0440	0.0411	0.0220	0.0466	4.23%	2.27%	4.80%	2.118
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	20	18	0.9476	0.0539	0.0528	0.0150	0.0549	5.57%	1.58%	5.79%	3.670
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	14	11	0.9261	0.0494	0.0484	0.0140	0.0503	5.22%	1.51%	5.44%	3.607

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
241.99	Acid Soluble Fe, Other (1%)	14	14	0.9247	0.0803	0.0790	0.0199	0.0815	8.54%	2.15%	8.81%	4.102
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1.5%)	10	10	1.089	0.0757	0.0718	0.0343	0.0795	6.59%	3.15%	7.30%	2.319
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	14	12	1.081	0.0769	0.0755	0.0208	0.0783	6.98%	1.92%	7.24%	3.772
261.99	Acid Soluble Mn, Other (1.5%)	15	14	1.175	0.1660	0.1650	0.0262	0.1670	14.04%	2.23%	14.21%	6.365
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	12	12	1.522	0.2416	0.2404	0.0349	0.2429	15.80%	2.30%	15.96%	6.955
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	20	18	1.458	0.0648	0.0625	0.0242	0.0670	4.28%	1.66%	4.59%	2.767
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	14	12	1.419	0.0945	0.0912	0.0347	0.0976	6.43%	2.45%	6.88%	2.809
321.99	Acid Soluble Zn, Other (2%)	12	10	1.410	0.1002	0.0964	0.0386	0.1038	6.84%	2.74%	7.36%	2.692

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

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 190711

Grade 3 - 6.9 - 3.6

Lab Values

Methods: 157

Labs Reporting: 96

Issue Date : 08/31/2019

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				
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0456	1.705	0.1500				2			0
001.10	Ammoniacal N, Magnesium Oxide Method (%)	0451	1.710	0.0400				2			0
001.99	Ammoniacal N, Other (%)	0524	1.833	0.0582	1.975	0.1692	0.0716	5	-0.84		0
001.99	Ammoniacal N, Other (%)	0096	1.875	0.0100	1.975	0.1692	0.0716	5	-0.59		0
001.99	Ammoniacal N, Other (%)	0544	1.920	0.0000	1.975	0.1692	0.0716	5	-0.32		0
001.99	Ammoniacal N, Other (%)	0420	1.985	0.1300	1.975	0.1692	0.0716	5	0.06		0
001.99	Ammoniacal N, Other (%)	0537	2.260	0.1600	1.975	0.1692	0.0716	5	1.69		0
003.10	Water Insoluble N, Method I (%)	0451	1.710	0.0400				1			0
005.99	Urea N, Other (%)	0537	1.765	0.0700				1			0
009.10	Ammoniacal Plus Nitrate N, Devarda (%)	0537	4.780	0.1200				1			0
010.11	Total N, Modified Comprehensive (3%)	0546	2.115	0.0300	3.977	1.672	0.0868	8	-1.02	Low	0
010.11	Total N, Modified Comprehensive (3%)	0309	2.700	0.1400	3.977	1.672	0.0868	8	-0.70	Low	0
010.11	Total N, Modified Comprehensive (3%)	0456	3.230	0.0800	3.977	1.672	0.0868	8	-0.41	Low	0
010.11	Total N, Modified Comprehensive (3%)	0220	3.565	0.0100	3.977	1.672	0.0868	8	-0.23	OK	0
010.11	Total N, Modified Comprehensive (3%)	0105	3.600	0.0200	3.977	1.672	0.0868	8	-0.21	OK	0
010.11	Total N, Modified Comprehensive (3%)	0510	4.419	0.1744	3.977	1.672	0.0868	8	0.24	OK	0
010.11	Total N, Modified Comprehensive (3%)	0551	5.890	0.1400	3.977	1.672	0.0868	8	1.05	High	0
010.11	Total N, Modified Comprehensive (3%)	0535	6.300	0.1000	3.977	1.672	0.0868	8	1.27	High	0
010.12	Total N, Salicylic (3%)	0416	3.590	0.0000				1			0
010.16	Total N, Raney (3%)	0300	3.564	0.0340				1			0
010.17	Total N, Comprehensive (3%)	0526	4.303	0.0000				1			0
010.60	Total N, Combustion (3%)	0555	3.350	0.1000	3.655	0.0875	0.0373	57	-3.48	OK	0
010.60	Total N, Combustion (3%)	0307	3.495	0.0100	3.655	0.0875	0.0373	57	-1.83	OK	0
010.60	Total N, Combustion (3%)	0485	3.533	0.0230	3.655	0.0875	0.0373	57	-1.40	OK	0
010.60	Total N, Combustion (3%)	0117	3.535	0.0100	3.655	0.0875	0.0373	57	-1.37	OK	0
010.60	Total N, Combustion (3%)	0291	3.535	0.0100	3.655	0.0875	0.0373	57	-1.37	OK	0
010.60	Total N, Combustion (3%)	0521	3.545	0.0000	3.655	0.0875	0.0373	57	-1.26	OK	0
010.60	Total N, Combustion (3%)	0043	3.555	0.0100	3.655	0.0875	0.0373	57	-1.14	OK	0
010.60	Total N, Combustion (3%)	0325	3.555	0.0100	3.655	0.0875	0.0373	57	-1.14	OK	0
010.60	Total N, Combustion (3%)	0106	3.570	0.0000	3.655	0.0875	0.0373	57	-0.97	OK	0
010.60	Total N, Combustion (3%)	0354	3.580	0.0200	3.655	0.0875	0.0373	57	-0.85	OK	0
010.60	Total N, Combustion (3%)	0452	3.585	0.0300	3.655	0.0875	0.0373	57	-0.80	OK	0
010.60	Total N, Combustion (3%)	0501	3.585	0.0100	3.655	0.0875	0.0373	57	-0.80	OK	0
010.60	Total N, Combustion (3%)	0095	3.590	0.0200	3.655	0.0875	0.0373	57	-0.74	OK	0
010.60	Total N, Combustion (3%)	0105	3.600	0.0600	3.655	0.0875	0.0373	57	-0.63	OK	0
010.60	Total N, Combustion (3%)	0055	3.600	0.2000	3.655	0.0875	0.0373	57	-0.63	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				
010.60	Total N, Combustion (3%)	0234	3.600	0.0000	3.655	0.0875	0.0373	57	-0.63	OK	0
010.60	Total N, Combustion (3%)	0523	3.600	0.0000	3.655	0.0875	0.0373	57	-0.63	OK	0
010.60	Total N, Combustion (3%)	0405	3.610	0.0400	3.655	0.0875	0.0373	57	-0.51	OK	0
010.60	Total N, Combustion (3%)	0486	3.610	0.0000	3.655	0.0875	0.0373	57	-0.51	OK	0
010.60	Total N, Combustion (3%)	0547	3.610	0.0000	3.655	0.0875	0.0373	57	-0.51	OK	0
010.60	Total N, Combustion (3%)	0534	3.615	0.0100	3.655	0.0875	0.0373	57	-0.45	OK	0
010.60	Total N, Combustion (3%)	0025	3.625	0.0650	3.655	0.0875	0.0373	57	-0.35	OK	0
010.60	Total N, Combustion (3%)	0444	3.625	0.0300	3.655	0.0875	0.0373	57	-0.34	OK	0
010.60	Total N, Combustion (3%)	0389	3.630	0.0200	3.655	0.0875	0.0373	57	-0.28	OK	0
010.60	Total N, Combustion (3%)	0390	3.635	0.0100	3.655	0.0875	0.0373	57	-0.23	OK	0
010.60	Total N, Combustion (3%)	0472	3.635	0.0100	3.655	0.0875	0.0373	57	-0.23	OK	0
010.60	Total N, Combustion (3%)	0136	3.640	0.0200	3.655	0.0875	0.0373	57	-0.17	OK	0
010.60	Total N, Combustion (3%)	0561	3.645	0.0100	3.655	0.0875	0.0373	57	-0.11	OK	0
010.60	Total N, Combustion (3%)	0034	3.650	0.0440	3.655	0.0875	0.0373	57	-0.05	OK	0
010.60	Total N, Combustion (3%)	0451	3.656	0.0700	3.655	0.0875	0.0373	57	0.01	OK	0
010.60	Total N, Combustion (3%)	0324	3.665	0.0300	3.655	0.0875	0.0373	57	0.12	OK	0
010.60	Total N, Combustion (3%)	0494	3.665	0.0700	3.655	0.0875	0.0373	57	0.12	OK	0
010.60	Total N, Combustion (3%)	0086	3.669	0.0549	3.655	0.0875	0.0373	57	0.16	OK	0
010.60	Total N, Combustion (3%)	0018	3.670	0.0000	3.655	0.0875	0.0373	57	0.17	OK	0
010.60	Total N, Combustion (3%)	0527	3.675	0.0340	3.655	0.0875	0.0373	57	0.23	OK	0
010.60	Total N, Combustion (3%)	0233	3.686	0.0060	3.655	0.0875	0.0373	57	0.36	OK	0
010.60	Total N, Combustion (3%)	0073	3.690	0.0200	3.655	0.0875	0.0373	57	0.40	OK	0
010.60	Total N, Combustion (3%)	0037	3.691	0.0230	3.655	0.0875	0.0373	57	0.41	OK	0
010.60	Total N, Combustion (3%)	0035	3.695	0.0100	3.655	0.0875	0.0373	57	0.46	OK	0
010.60	Total N, Combustion (3%)	0177	3.695	0.0280	3.655	0.0875	0.0373	57	0.46	OK	0
010.60	Total N, Combustion (3%)	0360	3.695	0.0300	3.655	0.0875	0.0373	57	0.46	OK	0
010.60	Total N, Combustion (3%)	0421	3.695	0.0100	3.655	0.0875	0.0373	57	0.46	OK	0
010.60	Total N, Combustion (3%)	0482	3.700	0.0400	3.655	0.0875	0.0373	57	0.52	OK	0
010.60	Total N, Combustion (3%)	0377	3.714	0.0240	3.655	0.0875	0.0373	57	0.68	OK	0
010.60	Total N, Combustion (3%)	0483	3.730	0.0000	3.655	0.0875	0.0373	57	0.86	OK	0
010.60	Total N, Combustion (3%)	0419	3.739	0.0010	3.655	0.0875	0.0373	57	0.96	OK	0
010.60	Total N, Combustion (3%)	0070	3.740	0.0600	3.655	0.0875	0.0373	57	0.97	OK	0
010.60	Total N, Combustion (3%)	0157	3.745	0.0300	3.655	0.0875	0.0373	57	1.03	OK	0
010.60	Total N, Combustion (3%)	0040	3.750	0.1000	3.655	0.0875	0.0373	57	1.09	OK	0
010.60	Total N, Combustion (3%)	0027	3.757	0.1140	3.655	0.0875	0.0373	57	1.17	OK	0
010.60	Total N, Combustion (3%)	0255	3.770	0.1330	3.655	0.0875	0.0373	57	1.31	OK	0
010.60	Total N, Combustion (3%)	0096	3.770	0.0200	3.655	0.0875	0.0373	57	1.32	OK	0
010.60	Total N, Combustion (3%)	0029	3.773	0.0070	3.655	0.0875	0.0373	57	1.35	OK	0
010.60	Total N, Combustion (3%)	0368	3.790	0.1170	3.655	0.0875	0.0373	57	1.54	OK	0
010.60	Total N, Combustion (3%)	0102	3.850	0.0800	3.655	0.0875	0.0373	57	2.23	OK	0
010.60	Total N, Combustion (3%)	0402	3.900	0.0400	3.655	0.0875	0.0373	57	2.80	OK	0
010.60	Total N, Combustion (3%)	0042	3.990	0.2000	3.655	0.0875	0.0373	57	3.83	OK	0
010.60	Total N, Combustion (3%)	0450	3.600	0.4000	3.655	0.0875	0.0373	57	-0.63	OK	1
010.99	Total N, Other (3%)	0519	2.930	0.0400	3.590	0.6162	0.0802	16	-1.07	Low	0
010.99	Total N, Other (3%)	0520	3.025	0.1900	3.590	0.6162	0.0802	16	-0.92	Low	0
010.99	Total N, Other (3%)	0532	3.025	0.1100	3.590	0.6162	0.0802	16	-0.92	Low	0
010.99	Total N, Other (3%)	0556	3.100	0.1000	3.590	0.6162	0.0802	16	-0.80	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				
010.99	Total N, Other (3%)	0545	3.125	0.0500	3.590	0.6162	0.0802	16	-0.75	OK	0
010.99	Total N, Other (3%)	0493	3.250	0.1000	3.590	0.6162	0.0802	16	-0.55	OK	0
010.99	Total N, Other (3%)	0476	3.449	0.0406	3.590	0.6162	0.0802	16	-0.23	OK	0
010.99	Total N, Other (3%)	0481	3.535	0.0700	3.590	0.6162	0.0802	16	-0.09	OK	0
010.99	Total N, Other (3%)	0522	3.535	0.0500	3.590	0.6162	0.0802	16	-0.09	OK	0
010.99	Total N, Other (3%)	0513	3.545	0.0100	3.590	0.6162	0.0802	16	-0.07	OK	0
010.99	Total N, Other (3%)	0558	3.655	0.0100	3.590	0.6162	0.0802	16	0.11	OK	0
010.99	Total N, Other (3%)	0524	3.726	0.0427	3.590	0.6162	0.0802	16	0.22	OK	0
010.99	Total N, Other (3%)	0420	4.000	0.2000	3.590	0.6162	0.0802	16	0.67	OK	0
010.99	Total N, Other (3%)	0559	5.515	0.0100	3.590	0.6162	0.0802	16	3.12	High	0
010.99	Total N, Other (3%)	0551	5.910	0.1000	3.590	0.6162	0.0802	16	3.76	High	0
010.99	Total N, Other (3%)	0537	6.310	0.1600	3.590	0.6162	0.0802	16	4.41	High	0
010.99	Total N, Other (3%)	0553	2.870	1.500	3.590	0.6162	0.0802	16	-1.17	Low	1
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0493	5.150	0.1000				2			0
020.10	Total P2O5, Gravimetric Quinolinium MolybdoP (%)	0136	5.240	0.0600				2			0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0553	1.103	0.0150	5.333	0.8880	0.0882	18	-4.76	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0324	2.300	0.3200	5.333	0.8880	0.0882	18	-3.42	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0561	2.360	0.0200	5.333	0.8880	0.0882	18	-3.35	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0420	4.515	0.3100	5.333	0.8880	0.0882	18	-0.92	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0220	5.150	0.0600	5.333	0.8880	0.0882	18	-0.21	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0027	5.190	0.0400	5.333	0.8880	0.0882	18	-0.16	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0419	5.217	0.0320	5.333	0.8880	0.0882	18	-0.13	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0416	5.250	0.0400	5.333	0.8880	0.0882	18	-0.09	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0526	5.340	0.0000	5.333	0.8880	0.0882	18	0.01	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0510	5.377	0.0403	5.333	0.8880	0.0882	18	0.05	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0450	5.510	0.0200	5.333	0.8880	0.0882	18	0.20	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0558	5.710	0.1600	5.333	0.8880	0.0882	18	0.42	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0534	5.765	0.0900	5.333	0.8880	0.0882	18	0.49	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0481	5.945	0.2700	5.333	0.8880	0.0882	18	0.69	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0476	5.961	0.0306	5.333	0.8880	0.0882	18	0.71	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0405	6.090	0.1400	5.333	0.8880	0.0882	18	0.85	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0309	6.480	0.0000	5.333	0.8880	0.0882	18	1.29	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0544	6.490	0.0000	5.333	0.8880	0.0882	18	1.30	NA	0
020.20	Total P2O5, Spectrophotometric MolybdovanadoP (%)	0522	6.530	0.8400	5.333	0.8880	0.0882	18	1.35	NA	1
020.40	Total P2O5, Automated (%)	0035	5.435	0.1300	5.762	0.3615	0.2767	3	-0.90		0
020.40	Total P2O5, Automated (%)	0096	5.700	0.2000	5.762	0.3615	0.2767	3	-0.17		0
020.40	Total P2O5, Automated (%)	0456	6.150	0.5000	5.762	0.3615	0.2767	3	1.07		0
020.50	Total P2O5, ICP (%)	0255	1.086	0.0840	5.186	0.6492	0.0811	26	-6.32	NA	0
020.50	Total P2O5, ICP (%)	0542	3.780	0.0200	5.186	0.6492	0.0811	26	-2.17	NA	0
020.50	Total P2O5, ICP (%)	0482	4.195	0.0900	5.186	0.6492	0.0811	26	-1.53	NA	0
020.50	Total P2O5, ICP (%)	0486	4.375	0.0700	5.186	0.6492	0.0811	26	-1.25	NA	0
020.50	Total P2O5, ICP (%)	0389	4.785	0.0500	5.186	0.6492	0.0811	26	-0.62	NA	0
020.50	Total P2O5, ICP (%)	0291	4.805	0.0100	5.186	0.6492	0.0811	26	-0.59	NA	0
020.50	Total P2O5, ICP (%)	0524	4.863	0.0482	5.186	0.6492	0.0811	26	-0.50	NA	0
020.50	Total P2O5, ICP (%)	0546	4.911	0.0630	5.186	0.6492	0.0811	26	-0.43	NA	0
020.50	Total P2O5, ICP (%)	0472	4.965	0.0300	5.186	0.6492	0.0811	26	-0.34	NA	0
020.50	Total P2O5, ICP (%)	0523	5.000	0.0000	5.186	0.6492	0.0811	26	-0.29	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				
020.50	Total P2O5, ICP (%)	0368	5.021	0.0791	5.186	0.6492	0.0811	26	-0.25	NA	0
020.50	Total P2O5, ICP (%)	0300	5.088	0.0060	5.186	0.6492	0.0811	26	-0.15	NA	0
020.50	Total P2O5, ICP (%)	0390	5.100	0.2000	5.186	0.6492	0.0811	26	-0.13	NA	0
020.50	Total P2O5, ICP (%)	0444	5.175	0.0700	5.186	0.6492	0.0811	26	-0.02	NA	0
020.50	Total P2O5, ICP (%)	0552	5.190	0.0600	5.186	0.6492	0.0811	26	0.01	NA	0
020.50	Total P2O5, ICP (%)	0547	5.220	0.1800	5.186	0.6492	0.0811	26	0.05	NA	0
020.50	Total P2O5, ICP (%)	0234	5.450	0.1000	5.186	0.6492	0.0811	26	0.41	NA	0
020.50	Total P2O5, ICP (%)	0117	5.464	0.0060	5.186	0.6492	0.0811	26	0.43	NA	0
020.50	Total P2O5, ICP (%)	0157	5.545	0.0500	5.186	0.6492	0.0811	26	0.55	NA	0
020.50	Total P2O5, ICP (%)	0042	5.600	0.2400	5.186	0.6492	0.0811	26	0.64	NA	0
020.50	Total P2O5, ICP (%)	0402	5.700	0.0000	5.186	0.6492	0.0811	26	0.79	NA	0
020.50	Total P2O5, ICP (%)	0527	5.730	0.0149	5.186	0.6492	0.0811	26	0.84	NA	0
020.50	Total P2O5, ICP (%)	0483	5.950	0.3000	5.186	0.6492	0.0811	26	1.18	NA	0
020.50	Total P2O5, ICP (%)	0555	5.954	0.2670	5.186	0.6492	0.0811	26	1.18	NA	0
020.50	Total P2O5, ICP (%)	0521	6.933	0.0000	5.186	0.6492	0.0811	26	2.69	NA	0
020.50	Total P2O5, ICP (%)	0433	11.21	0.0700	5.186	0.6492	0.0811	26	9.27	NA	0
020.99	Total P2O5, Other (%)	0513	5.040	0.0200	7.728	4.857	0.6510	4	-0.55		0
020.99	Total P2O5, Other (%)	0559	5.150	0.1000	7.728	4.857	0.6510	4	-0.53		0
020.99	Total P2O5, Other (%)	0515	5.720	2.284	7.728	4.857	0.6510	4	-0.41		0
020.99	Total P2O5, Other (%)	0520	15.00	0.2000	7.728	4.857	0.6510	4	1.50		0
030.40	Citrate Insoluble P2O5, Automated, test portion 963.03 A-B (%)	0096	0.3300	0.0000				1			0
040.40	Indirect Available P2O5, Automated (6.9%)	0096	5.375	0.1900				1			0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6.9%)	0494	4.670	0.2200	5.029	0.5262	0.1339	5	-0.68		0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6.9%)	0177	4.754	0.0908	5.029	0.5262	0.1339	5	-0.52		0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6.9%)	0086	4.802	0.0386	5.029	0.5262	0.1339	5	-0.43		0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6.9%)	0055	4.970	0.0200	5.029	0.5262	0.1339	5	-0.11		0
041.10	Direct Available P2O5, Gravimetric Quinolinium (6.9%)	0102	5.950	0.3000	5.029	0.5262	0.1339	5	1.75		0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext.... (6.9%)	0220	4.795	0.0100	4.925	0.0937	0.0595	4	-1.39		0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext.... (6.9%)	0485	4.921	0.0980	4.925	0.0937	0.0595	4	-0.05		0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext.... (6.9%)	0513	4.980	0.0200	4.925	0.0937	0.0595	4	0.58		0
041.11	Direct Available P2O5, Gravimetric Quinolinium, Citrate-EDTA Ext.... (6.9%)	0105	5.005	0.1100	4.925	0.0937	0.0595	4	0.85		0
041.20	Direct Available P2O5, Spectrophotometric (6.9%)	0027	4.505	0.2300				1			0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6.9%)	0106	4.665	0.0100	4.955	0.2762	0.0300	3	-1.05		0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6.9%)	0522	4.985	0.0500	4.955	0.2762	0.0300	3	0.11		0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (6.9%)	0544	5.215	0.0300	4.955	0.2762	0.0300	3	0.94		0
041.40	Direct Available P2O5, Automated (6.9%)	0095	4.705	0.1100				2			0
041.40	Direct Available P2O5, Automated (6.9%)	0018	5.630	0.0200				2			0
041.50	Direct Available P2O5, ICP (6.9%)	0325	4.100	0.0000	4.903	0.5564	0.0408	5	-1.44		0
041.50	Direct Available P2O5, ICP (6.9%)	0070	4.810	0.0400	4.903	0.5564	0.0408	5	-0.17		0
041.50	Direct Available P2O5, ICP (6.9%)	0452	4.890	0.0000	4.903	0.5564	0.0408	5	-0.02		0
041.50	Direct Available P2O5, ICP (6.9%)	0131	5.067	0.0640	4.903	0.5564	0.0408	5	0.29		0
041.50	Direct Available P2O5, ICP (6.9%)	0421	5.650	0.1000	4.903	0.5564	0.0408	5	1.34		0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6.9%)	0377	2.775	0.0300	4.559	1.004	0.0792	5	-1.78		0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6.9%)	0233	4.889	0.1860	4.559	1.004	0.0792	5	0.33		0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6.9%)	0360	4.950	0.0200	4.559	1.004	0.0792	5	0.39		0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6.9%)	0025	4.985	0.0900	4.559	1.004	0.0792	5	0.42		0
041.51	Direct Available P2O5, ICP, Citrate-EDTA Ext. (6.9%)	0494	5.195	0.0700	4.559	1.004	0.0792	5	0.63		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				
041.60	Direct Available P2O5, Citrate-EDTA Ext. (6.9%)	0472	4.130	0.0200	5.185	0.8011	0.0852	8	-1.20	Low	0
041.60	Direct Available P2O5, Citrate-EDTA Ext. (6.9%)	0177	4.251	0.0267	5.185	0.8011	0.0852	8	-1.07	Low	0
041.60	Direct Available P2O5, Citrate-EDTA Ext. (6.9%)	0055	4.860	0.0600	5.185	0.8011	0.0852	8	-0.37	OK	0
041.60	Direct Available P2O5, Citrate-EDTA Ext. (6.9%)	0029	5.340	0.0800	5.185	0.8011	0.0852	8	0.18	OK	0
041.60	Direct Available P2O5, Citrate-EDTA Ext. (6.9%)	0354	5.535	0.1100	5.185	0.8011	0.0852	8	0.40	OK	0
041.60	Direct Available P2O5, Citrate-EDTA Ext. (6.9%)	0037	5.598	0.2280	5.185	0.8011	0.0852	8	0.47	OK	0
041.60	Direct Available P2O5, Citrate-EDTA Ext. (6.9%)	0034	5.644	0.0166	5.185	0.8011	0.0852	8	0.52	OK	0
041.60	Direct Available P2O5, Citrate-EDTA Ext. (6.9%)	0105	6.120	0.1400	5.185	0.8011	0.0852	8	1.07	High	0
041.99	Direct Available P2O5, Other (6.9%)	0519	1.885	0.0100	6.296	1.137	0.1125	8	-3.55	Low	0
041.99	Direct Available P2O5, Other (6.9%)	0307	4.915	0.1100	6.296	1.137	0.1125	8	-1.11	Low	0
041.99	Direct Available P2O5, Other (6.9%)	0551	6.175	0.0500	6.296	1.137	0.1125	8	-0.10	OK	0
041.99	Direct Available P2O5, Other (6.9%)	0545	6.685	0.0100	6.296	1.137	0.1125	8	0.31	OK	0
041.99	Direct Available P2O5, Other (6.9%)	0537	6.800	0.4200	6.296	1.137	0.1125	8	0.41	OK	0
041.99	Direct Available P2O5, Other (6.9%)	0532	6.975	0.0700	6.296	1.137	0.1125	8	0.55	High	0
041.99	Direct Available P2O5, Other (6.9%)	0535	7.055	0.0900	6.296	1.137	0.1125	8	0.61	High	0
041.99	Direct Available P2O5, Other (6.9%)	0536	7.170	0.1400	6.296	1.137	0.1125	8	0.70	High	0
042.10	Water Soluble OrthoP As P2O5, Spectrophotometric (%)	0553	5.077	0.0000				1			0
048.20	Water Soluble P2O5, Spectrophotometric (%)	0420	2.100	0.1600				1			0
048.40	Water Soluble P2O5, Automated (%)	0096	1.385	0.1100				1			0
048.50	Water Soluble P2O5, ICP (%)	0444	1.635	0.0300				1			0
048.99	Water Soluble P2O5, Other (%)	0556	6.360	0.1800				1			0
050.00	Soluble K2O, STPB Oxalate (3.6%)	0220	4.020	0.0000	4.337	0.3166	0.1286	7	-0.91	OK	0
050.00	Soluble K2O, STPB Oxalate (3.6%)	0102	4.050	0.3000	4.337	0.3166	0.1286	7	-0.82	OK	0
050.00	Soluble K2O, STPB Oxalate (3.6%)	0405	4.215	0.1300	4.337	0.3166	0.1286	7	-0.35	OK	0
050.00	Soluble K2O, STPB Oxalate (3.6%)	0494	4.325	0.0300	4.337	0.3166	0.1286	7	-0.04	OK	0
050.00	Soluble K2O, STPB Oxalate (3.6%)	0055	4.405	0.3500	4.337	0.3166	0.1286	7	0.19	OK	0
050.00	Soluble K2O, STPB Oxalate (3.6%)	0416	4.535	0.0300	4.337	0.3166	0.1286	7	0.56	OK	0
050.00	Soluble K2O, STPB Oxalate (3.6%)	0522	4.950	0.0600	4.337	0.3166	0.1286	7	1.75	High	0
050.10	Soluble K2O, STPB Citrate (3.6%)	0498	3.650	0.1000				1			0
050.30	Soluble K2O, AA (Oxalate) (3.6%)	0309	3.670	0.0200				2			0
050.30	Soluble K2O, AA (Oxalate) (3.6%)	0136	4.325	0.0500				2			0
050.31	Soluble K2O, AA (Citrate) (3.6%)	0472	4.040	0.1800				1			0
050.50	Soluble K2O, ICP (Oxalate) (3.6%)	0055	4.230	0.1200	4.540	0.2717	0.0950	7	-1.03	OK	0
050.50	Soluble K2O, ICP (Oxalate) (3.6%)	0106	4.375	0.0300	4.540	0.2717	0.0950	7	-0.55	OK	0
050.50	Soluble K2O, ICP (Oxalate) (3.6%)	0324	4.400	0.1000	4.540	0.2717	0.0950	7	-0.46	OK	0
050.50	Soluble K2O, ICP (Oxalate) (3.6%)	0444	4.445	0.0700	4.540	0.2717	0.0950	7	-0.31	OK	0
050.50	Soluble K2O, ICP (Oxalate) (3.6%)	0086	4.655	0.0759	4.540	0.2717	0.0950	7	0.38	OK	0
050.50	Soluble K2O, ICP (Oxalate) (3.6%)	0420	4.793	0.2290	4.540	0.2717	0.0950	7	0.84	OK	0
050.50	Soluble K2O, ICP (Oxalate) (3.6%)	0390	4.880	0.0400	4.540	0.2717	0.0950	7	1.13	OK	0
050.51	Soluble K2O, ICP (Citrate) (3.6%)	0555	3.805	0.1700	4.508	0.6324	0.0850	8	-1.02	Low	0
050.51	Soluble K2O, ICP (Citrate) (3.6%)	0131	3.866	0.0560	4.508	0.6324	0.0850	8	-0.93	Low	0
050.51	Soluble K2O, ICP (Citrate) (3.6%)	0547	4.100	0.0200	4.508	0.6324	0.0850	8	-0.59	OK	0
050.51	Soluble K2O, ICP (Citrate) (3.6%)	0070	4.430	0.0000	4.508	0.6324	0.0850	8	-0.11	OK	0
050.51	Soluble K2O, ICP (Citrate) (3.6%)	0452	4.720	0.0000	4.508	0.6324	0.0850	8	0.31	OK	0
050.51	Soluble K2O, ICP (Citrate) (3.6%)	0291	4.815	0.0100	4.508	0.6324	0.0850	8	0.44	OK	0
050.51	Soluble K2O, ICP (Citrate) (3.6%)	0368	4.944	0.1537	4.508	0.6324	0.0850	8	0.63	High	0
050.51	Soluble K2O, ICP (Citrate) (3.6%)	0483	5.385	0.2700	4.508	0.6324	0.0850	8	1.27	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				
050.52	Soluble K2O, ICP (Citrate-EDTA) (3.6%)	0377	4.460	0.0400	4.584	0.0934	0.0360	5	-1.16		0
050.52	Soluble K2O, ICP (Citrate-EDTA) (3.6%)	0494	4.555	0.0500	4.584	0.0934	0.0360	5	-0.27		0
050.52	Soluble K2O, ICP (Citrate-EDTA) (3.6%)	0354	4.590	0.0200	4.584	0.0934	0.0360	5	0.06		0
050.52	Soluble K2O, ICP (Citrate-EDTA) (3.6%)	0025	4.595	0.0500	4.584	0.0934	0.0360	5	0.10		0
050.52	Soluble K2O, ICP (Citrate-EDTA) (3.6%)	0360	4.720	0.0200	4.584	0.0934	0.0360	5	1.27		0
050.52	Soluble K2O, ICP (Citrate-EDTA) (3.6%)	0233	4.738	0.3260	4.584	0.0934	0.0360	5	1.44		1
050.60	Soluble K2O, Flame Photometric (Oxalate) (3.6%)	0476	4.240	0.0442	4.352	0.1099	0.0723	4	-1.01		0
050.60	Soluble K2O, Flame Photometric (Oxalate) (3.6%)	0526	4.276	0.0000	4.352	0.1099	0.0723	4	-0.69		0
050.60	Soluble K2O, Flame Photometric (Oxalate) (3.6%)	0510	4.431	0.1649	4.352	0.1099	0.0723	4	0.72		0
050.60	Soluble K2O, Flame Photometric (Oxalate) (3.6%)	0105	4.460	0.0800	4.352	0.1099	0.0723	4	0.99		0
050.61	Soluble K2O, Flame Photometric (Citrate) (3.6%)	0535	4.050	0.1000				2			0
050.61	Soluble K2O, Flame Photometric (Citrate) (3.6%)	0035	4.455	0.0100				2			0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (3.6%)	0535	4.050	0.1000	4.581	0.2050	0.0626	8	-2.37	Low	0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (3.6%)	0018	4.455	0.0700	4.581	0.2050	0.0626	8	-0.56	OK	0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (3.6%)	0105	4.515	0.0300	4.581	0.2050	0.0626	8	-0.29	OK	0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (3.6%)	0034	4.525	0.0438	4.581	0.2050	0.0626	8	-0.25	OK	0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (3.6%)	0513	4.590	0.0800	4.581	0.2050	0.0626	8	0.04	OK	0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (3.6%)	0029	4.710	0.0400	4.581	0.2050	0.0626	8	0.58	OK	0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (3.6%)	0037	4.728	0.1170	4.581	0.2050	0.0626	8	0.66	OK	0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (3.6%)	0095	4.850	0.0200	4.581	0.2050	0.0626	8	1.20	OK	0
050.99	Soluble K2O, Other (3.6%)	0558	3.405	0.0100	4.244	0.5525	0.0911	34	-1.52	Low	0
050.99	Soluble K2O, Other (3.6%)	0533	3.580	0.1200	4.244	0.5525	0.0911	34	-1.20	Low	0
050.99	Soluble K2O, Other (3.6%)	0493	3.600	0.1000	4.244	0.5525	0.0911	34	-1.17	Low	0
050.99	Soluble K2O, Other (3.6%)	0519	3.630	0.0200	4.244	0.5525	0.0911	34	-1.11	Low	0
050.99	Soluble K2O, Other (3.6%)	0481	3.640	0.0600	4.244	0.5525	0.0911	34	-1.09	Low	0
050.99	Soluble K2O, Other (3.6%)	0532	3.640	0.1600	4.244	0.5525	0.0911	34	-1.09	Low	0
050.99	Soluble K2O, Other (3.6%)	0419	3.649	0.0330	4.244	0.5525	0.0911	34	-1.08	Low	0
050.99	Soluble K2O, Other (3.6%)	0537	3.680	0.1200	4.244	0.5525	0.0911	34	-1.02	Low	0
050.99	Soluble K2O, Other (3.6%)	0255	3.697	0.0780	4.244	0.5525	0.0911	34	-0.99	Low	0
050.99	Soluble K2O, Other (3.6%)	0556	3.845	0.1900	4.244	0.5525	0.0911	34	-0.72	OK	0
050.99	Soluble K2O, Other (3.6%)	0561	3.965	0.0300	4.244	0.5525	0.0911	34	-0.51	OK	0
050.99	Soluble K2O, Other (3.6%)	0545	3.970	0.0400	4.244	0.5525	0.0911	34	-0.50	OK	0
050.99	Soluble K2O, Other (3.6%)	0535	4.000	0.0000	4.244	0.5525	0.0911	34	-0.44	OK	0
050.99	Soluble K2O, Other (3.6%)	0551	4.060	0.0600	4.244	0.5525	0.0911	34	-0.33	OK	0
050.99	Soluble K2O, Other (3.6%)	0552	4.090	0.1000	4.244	0.5525	0.0911	34	-0.28	OK	0
050.99	Soluble K2O, Other (3.6%)	0521	4.226	0.0000	4.244	0.5525	0.0911	34	-0.03	OK	0
050.99	Soluble K2O, Other (3.6%)	0559	4.365	0.0100	4.244	0.5525	0.0911	34	0.22	OK	0
050.99	Soluble K2O, Other (3.6%)	0402	4.370	0.0200	4.244	0.5525	0.0911	34	0.23	OK	0
050.99	Soluble K2O, Other (3.6%)	0307	4.385	0.2100	4.244	0.5525	0.0911	34	0.26	OK	0
050.99	Soluble K2O, Other (3.6%)	0234	4.450	0.3000	4.244	0.5525	0.0911	34	0.37	OK	0
050.99	Soluble K2O, Other (3.6%)	0325	4.450	0.3000	4.244	0.5525	0.0911	34	0.37	OK	0
050.99	Soluble K2O, Other (3.6%)	0523	4.450	0.1000	4.244	0.5525	0.0911	34	0.37	OK	0
050.99	Soluble K2O, Other (3.6%)	0027	4.485	0.0100	4.244	0.5525	0.0911	34	0.44	OK	0
050.99	Soluble K2O, Other (3.6%)	0300	4.539	0.0250	4.244	0.5525	0.0911	34	0.53	OK	0
050.99	Soluble K2O, Other (3.6%)	0433	4.635	0.0100	4.244	0.5525	0.0911	34	0.71	OK	0
050.99	Soluble K2O, Other (3.6%)	0482	4.650	0.0200	4.244	0.5525	0.0911	34	0.73	OK	0
050.99	Soluble K2O, Other (3.6%)	0527	4.689	0.1321	4.244	0.5525	0.0911	34	0.80	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				
050.99	Soluble K2O, Other (3.6%)	0450	4.715	0.1100	4.244	0.5525	0.0911	34	0.85	High	0
050.99	Soluble K2O, Other (3.6%)	0520	4.760	0.4200	4.244	0.5525	0.0911	34	0.93	High	0
050.99	Soluble K2O, Other (3.6%)	0546	4.790	0.1500	4.244	0.5525	0.0911	34	0.99	High	0
050.99	Soluble K2O, Other (3.6%)	0389	4.810	0.0400	4.244	0.5525	0.0911	34	1.02	High	0
050.99	Soluble K2O, Other (3.6%)	0421	4.925	0.0500	4.244	0.5525	0.0911	34	1.23	High	0
050.99	Soluble K2O, Other (3.6%)	0542	5.150	0.0400	4.244	0.5525	0.0911	34	1.64	High	0
050.99	Soluble K2O, Other (3.6%)	0524	5.184	0.0292	4.244	0.5525	0.0911	34	1.70	High	0
050.99	Soluble K2O, Other (3.6%)	0042	5.215	0.5100	4.244	0.5525	0.0911	34	1.76	High	1
060.00	Water (Free), Vacuum Oven (%)	0513	0.6050	0.0100	2.361	1.337	0.0548	4	-1.31		0
060.00	Water (Free), Vacuum Oven (%)	0456	2.405	0.0300	2.361	1.337	0.0548	4	0.03		0
060.00	Water (Free), Vacuum Oven (%)	0416	2.579	0.0291	2.361	1.337	0.0548	4	0.16		0
060.00	Water (Free), Vacuum Oven (%)	0096	3.855	0.1500	2.361	1.337	0.0548	4	1.12		0
060.99	Water (Free), Other (%)	0510	3.218	0.2350				1			0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (2%)	0535	0.4500	0.1000	3.878	0.9317	0.1414	9	-3.40	Low	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (2%)	0534	2.100	0.0400	3.878	0.9317	0.1414	9	-1.76	Low	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (2%)	0485	3.950	0.1600	3.878	0.9317	0.1414	9	0.07	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (2%)	0157	4.135	0.1500	3.878	0.9317	0.1414	9	0.25	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (2%)	0105	4.176	0.0170	3.878	0.9317	0.1414	9	0.29	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (2%)	0553	4.205	0.3700	3.878	0.9317	0.1414	9	0.32	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (2%)	0073	4.240	0.0600	3.878	0.9317	0.1414	9	0.36	OK	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (2%)	0513	4.585	0.0300	3.878	0.9317	0.1414	9	0.70	High	0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (2%)	0029	4.650	0.3460	3.878	0.9317	0.1414	9	0.76	High	0
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual acid (2%)	0105	4.425	0.4520				1			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0420	1.965	0.0410	4.332	0.2930	0.0929	19	-8.08	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0255	3.325	0.0220	4.332	0.2930	0.0929	19	-3.44	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0234	3.850	0.1000	4.332	0.2930	0.0929	19	-1.64	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0377	4.200	0.0400	4.332	0.2930	0.0929	19	-0.45	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0419	4.245	0.1940	4.332	0.2930	0.0929	19	-0.30	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0444	4.275	0.0500	4.332	0.2930	0.0929	19	-0.19	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0073	4.280	0.0400	4.332	0.2930	0.0929	19	-0.18	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0102	4.281	0.3800	4.332	0.2930	0.0929	19	-0.17	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0035	4.285	0.0500	4.332	0.2930	0.0929	19	-0.16	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0472	4.295	0.0100	4.332	0.2930	0.0929	19	-0.13	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0482	4.350	0.1600	4.332	0.2930	0.0929	19	0.06	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0360	4.365	0.0500	4.332	0.2930	0.0929	19	0.11	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0354	4.370	0.1400	4.332	0.2930	0.0929	19	0.13	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0433	4.401	0.0080	4.332	0.2930	0.0929	19	0.24	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0049	4.525	0.2000	4.332	0.2930	0.0929	19	0.66	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0324	4.575	0.2100	4.332	0.2930	0.0929	19	0.83	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0402	4.640	0.0400	4.332	0.2930	0.0929	19	1.05	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0291	5.410	0.0000	4.332	0.2930	0.0929	19	3.68	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (2%)	0483	5.655	0.0300	4.332	0.2930	0.0929	19	4.51	High	0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (2%)	0300	4.221	0.0450	4.356	0.1129	0.0338	4	-1.20		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (2%)	0521	4.320	0.0000	4.356	0.1129	0.0338	4	-0.32		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (2%)	0220	4.400	0.0400	4.356	0.1129	0.0338	4	0.39		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (2%)	0095	4.485	0.0500	4.356	0.1129	0.0338	4	1.14		0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0555	2.405	0.1300	4.238	0.2838	0.0850	14	-6.46	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				
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0561	4.010	0.0400	4.238	0.2838	0.0850	14	-0.80	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0040	4.060	0.1400	4.238	0.2838	0.0850	14	-0.63	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0421	4.085	0.0100	4.238	0.2838	0.0850	14	-0.54	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0106	4.101	0.0103	4.238	0.2838	0.0850	14	-0.48	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0055	4.105	0.0300	4.238	0.2838	0.0850	14	-0.47	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0177	4.111	0.1160	4.238	0.2838	0.0850	14	-0.45	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0034	4.168	0.2300	4.238	0.2838	0.0850	14	-0.25	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0117	4.264	0.0177	4.238	0.2838	0.0850	14	0.09	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0233	4.362	0.1510	4.238	0.2838	0.0850	14	0.43	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0037	4.435	0.0490	4.238	0.2838	0.0850	14	0.69	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0486	4.565	0.2500	4.238	0.2838	0.0850	14	1.15	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0527	4.615	0.0143	4.238	0.2838	0.0850	14	1.33	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (2%)	0546	4.645	0.0010	4.238	0.2838	0.0850	14	1.43	OK	0
101.70	Acid Soluble Ca, Titrimetric (2%)	0510	3.826	0.0864				2			0
101.70	Acid Soluble Ca, Titrimetric (2%)	0544	5.175	0.0300				2			0
101.99	Acid Soluble Ca, Other (2%)	0519	2.020	0.0200	3.974	0.3423	0.0870	12	-5.71	Low	0
101.99	Acid Soluble Ca, Other (2%)	0405	3.710	0.1800	3.974	0.3423	0.0870	12	-0.77	OK	0
101.99	Acid Soluble Ca, Other (2%)	0558	3.750	0.0600	3.974	0.3423	0.0870	12	-0.65	OK	0
101.99	Acid Soluble Ca, Other (2%)	0481	3.760	0.0000	3.974	0.3423	0.0870	12	-0.63	OK	0
101.99	Acid Soluble Ca, Other (2%)	0042	3.800	0.1000	3.974	0.3423	0.0870	12	-0.51	OK	0
101.99	Acid Soluble Ca, Other (2%)	0520	3.900	0.1000	3.974	0.3423	0.0870	12	-0.22	OK	0
101.99	Acid Soluble Ca, Other (2%)	0389	4.000	0.0600	3.974	0.3423	0.0870	12	0.08	OK	0
101.99	Acid Soluble Ca, Other (2%)	0523	4.100	0.0000	3.974	0.3423	0.0870	12	0.37	OK	0
101.99	Acid Soluble Ca, Other (2%)	0027	4.125	0.1270	3.974	0.3423	0.0870	12	0.44	OK	0
101.99	Acid Soluble Ca, Other (2%)	0368	4.186	0.0472	3.974	0.3423	0.0870	12	0.62	OK	0
101.99	Acid Soluble Ca, Other (2%)	0390	4.410	0.0400	3.974	0.3423	0.0870	12	1.27	High	0
101.99	Acid Soluble Ca, Other (2%)	0552	4.565	0.3100	3.974	0.3423	0.0870	12	1.73	High	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.7%)	0485	1.590	0.0640	1.748	0.1435	0.0541	9	-1.02	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.7%)	0535	1.650	0.1000	1.748	0.1435	0.0541	9	-0.63	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.7%)	0534	1.680	0.0400	1.748	0.1435	0.0541	9	-0.44	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.7%)	0553	1.688	0.1850	1.748	0.1435	0.0541	9	-0.39	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.7%)	0105	1.694	0.0140	1.748	0.1435	0.0541	9	-0.35	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.7%)	0040	1.700	0.0200	1.748	0.1435	0.0541	9	-0.31	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.7%)	0029	1.884	0.0340	1.748	0.1435	0.0541	9	0.88	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.7%)	0513	1.905	0.0100	1.748	0.1435	0.0541	9	1.01	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (1.7%)	0309	1.940	0.0200	1.748	0.1435	0.0541	9	1.24	OK	0
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid ... (1.7%)	0526	1.370	0.3268	1.607	0.1998	0.1137	4	-1.19		0
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid ... (1.7%)	0498	1.550	0.1000	1.607	0.1998	0.1137	4	-0.29		0
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid ... (1.7%)	0105	1.663	0.0180	1.607	0.1998	0.1137	4	0.28		0
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid ... (1.7%)	0546	1.846	0.0100	1.607	0.1998	0.1137	4	1.20		0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0255	1.591	0.0020	1.757	0.1023	0.0213	18	-1.63	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0444	1.645	0.0100	1.757	0.1023	0.0213	18	-1.10	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0102	1.661	0.0500	1.757	0.1023	0.0213	18	-0.94	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0377	1.675	0.0300	1.757	0.1023	0.0213	18	-0.81	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0420	1.703	0.0350	1.757	0.1023	0.0213	18	-0.54	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0035	1.715	0.0300	1.757	0.1023	0.0213	18	-0.41	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0360	1.730	0.0000	1.757	0.1023	0.0213	18	-0.27	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				
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0419	1.731	0.0020	1.757	0.1023	0.0213	18	-0.26	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0433	1.745	0.0030	1.757	0.1023	0.0213	18	-0.13	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0095	1.750	0.0400	1.757	0.1023	0.0213	18	-0.07	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0354	1.760	0.0400	1.757	0.1023	0.0213	18	0.03	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0482	1.770	0.0200	1.757	0.1023	0.0213	18	0.12	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0390	1.775	0.0300	1.757	0.1023	0.0213	18	0.17	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0049	1.784	0.0310	1.757	0.1023	0.0213	18	0.26	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0291	1.875	0.0100	1.757	0.1023	0.0213	18	1.15	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0324	1.890	0.0200	1.757	0.1023	0.0213	18	1.30	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0472	1.990	0.0200	1.757	0.1023	0.0213	18	2.27	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0483	2.265	0.0100	1.757	0.1023	0.0213	18	4.96	High	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (1.7%)	0234	1.650	0.1000	1.757	0.1023	0.0213	18	-1.05	OK	1
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1.7%)	0521	1.643	0.0000	1.702	0.0555	0.0020	3	-1.06		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1.7%)	0220	1.710	0.0000	1.702	0.0555	0.0020	3	0.14		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (1.7%)	0300	1.753	0.0060	1.702	0.0555	0.0020	3	0.92		0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0106	1.505	0.0150	1.684	0.0697	0.0366	12	-2.57	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0486	1.590	0.0200	1.684	0.0697	0.0366	12	-1.34	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0421	1.625	0.0500	1.684	0.0697	0.0366	12	-0.84	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0034	1.664	0.0880	1.684	0.0697	0.0366	12	-0.28	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0555	1.685	0.0700	1.684	0.0697	0.0366	12	0.02	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0055	1.690	0.0400	1.684	0.0697	0.0366	12	0.09	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0561	1.690	0.0000	1.684	0.0697	0.0366	12	0.09	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0117	1.707	0.0100	1.684	0.0697	0.0366	12	0.33	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0233	1.711	0.0620	1.684	0.0697	0.0366	12	0.39	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0037	1.735	0.0240	1.684	0.0697	0.0366	12	0.74	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0177	1.740	0.0553	1.684	0.0697	0.0366	12	0.81	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0527	1.840	0.0044	1.684	0.0697	0.0366	12	2.24	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (1.7%)	0515	2.468	0.8518	1.684	0.0697	0.0366	12	11.24	High	1
121.99	Acid Soluble Mg, Other (1.7%)	0481	1.450	0.0000	1.695	0.1218	0.0748	15	-2.01	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0405	1.530	0.0800	1.695	0.1218	0.0748	15	-1.36	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0552	1.555	0.0500	1.695	0.1218	0.0748	15	-1.15	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0558	1.610	0.0200	1.695	0.1218	0.0748	15	-0.70	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0519	1.675	0.0500	1.695	0.1218	0.0748	15	-0.17	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0307	1.680	0.0800	1.695	0.1218	0.0748	15	-0.13	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0042	1.685	0.0700	1.695	0.1218	0.0748	15	-0.09	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0368	1.714	0.0013	1.695	0.1218	0.0748	15	0.15	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0389	1.715	0.0300	1.695	0.1218	0.0748	15	0.16	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0524	1.721	0.0730	1.695	0.1218	0.0748	15	0.21	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0515	1.753	0.0323	1.695	0.1218	0.0748	15	0.47	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0027	1.773	0.1460	1.695	0.1218	0.0748	15	0.64	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0523	1.800	0.0000	1.695	0.1218	0.0748	15	0.86	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0450	1.830	0.3000	1.695	0.1218	0.0748	15	1.10	OK	0
121.99	Acid Soluble Mg, Other (1.7%)	0520	3.125	0.1900	1.695	0.1218	0.0748	15	11.73	High	0
131.00	Water Soluble Mg, AA (%)	0553	1.170	0.1500				1			0
131.30	Water Soluble Mg, ICP (%)	0444	1.185	0.0300				2			0
131.30	Water Soluble Mg, ICP (%)	0027	1.310	0.0000				2			0
131.70	Water Soluble Mg, Titrimetric (EDTA) (%)	0510	2.360	0.0958				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				
143.00	Elemental S, Gravimetric Sulfur - carbon disulfide soluble sulfur (%)	0095	0.3800	0.3200				1			0
143.99	Elemental S, Other (%)	0481	6.745	0.0500	7.477	0.6698	0.0770	6	-0.97	NA	0
143.99	Elemental S, Other (%)	0472	6.970	0.0000	7.477	0.6698	0.0770	6	-0.67	NA	0
143.99	Elemental S, Other (%)	0255	7.414	0.2420	7.477	0.6698	0.0770	6	-0.08	NA	0
143.99	Elemental S, Other (%)	0390	7.495	0.0300	7.477	0.6698	0.0770	6	0.02	NA	0
143.99	Elemental S, Other (%)	0389	7.875	0.1300	7.477	0.6698	0.0770	6	0.53	NA	0
143.99	Elemental S, Other (%)	0291	8.365	0.0100	7.477	0.6698	0.0770	6	1.18	NA	0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0220	3.355	0.0900	7.018	0.5034	0.1146	8	-6.66	NA	0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0405	6.745	0.0700	7.018	0.5034	0.1146	8	-0.50	NA	0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0544	6.780	0.0200	7.018	0.5034	0.1146	8	-0.43	NA	0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0561	6.980	0.0600	7.018	0.5034	0.1146	8	-0.07	NA	0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0522	7.115	0.0100	7.018	0.5034	0.1146	8	0.18	NA	0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0095	7.170	0.2000	7.018	0.5034	0.1146	8	0.28	NA	0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0485	7.317	0.0875	7.018	0.5034	0.1146	8	0.54	NA	0
145.00	Sulfate S, HCl soluble, Gravimetric Sulfur - sulfate form (%)	0510	9.159	0.3792	7.018	0.5034	0.1146	8	3.89	NA	0
145.99	Sulfate S, HCl soluble, Other (%)	0444	6.435	0.0700				1			0
148.00	Total S, Combustion (7%)	0131	7.264	0.0310	7.491	0.1802	0.0610	7	-1.14	OK	0
148.00	Total S, Combustion (7%)	0555	7.370	0.0600	7.491	0.1802	0.0610	7	-0.61	OK	0
148.00	Total S, Combustion (7%)	0025	7.458	0.1340	7.491	0.1802	0.0610	7	-0.17	OK	0
148.00	Total S, Combustion (7%)	0419	7.465	0.1070	7.491	0.1802	0.0610	7	-0.14	OK	0
148.00	Total S, Combustion (7%)	0029	7.553	0.0350	7.491	0.1802	0.0610	7	0.31	OK	0
148.00	Total S, Combustion (7%)	0136	7.570	0.0400	7.491	0.1802	0.0610	7	0.39	OK	0
148.00	Total S, Combustion (7%)	0451	7.950	0.0200	7.491	0.1802	0.0610	7	2.30	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (7%)	0476	2.878	0.0507	7.063	0.4597	0.1053	11	-8.52	Low	0
148.01	Total S, Gravimetric - sulfate and elemental (7%)	0545	6.650	0.1000	7.063	0.4597	0.1053	11	-0.84	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (7%)	0526	6.691	0.0000	7.063	0.4597	0.1053	11	-0.76	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (7%)	0073	6.860	0.0800	7.063	0.4597	0.1053	11	-0.41	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (7%)	0029	7.010	0.0600	7.063	0.4597	0.1053	11	-0.11	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (7%)	0534	7.105	0.1700	7.063	0.4597	0.1053	11	0.09	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (7%)	0055	7.140	0.2000	7.063	0.4597	0.1053	11	0.16	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (7%)	0324	7.240	0.1800	7.063	0.4597	0.1053	11	0.36	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (7%)	0485	7.317	0.0875	7.063	0.4597	0.1053	11	0.52	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (7%)	0095	7.550	0.1200	7.063	0.4597	0.1053	11	0.99	OK	0
148.01	Total S, Gravimetric - sulfate and elemental (7%)	0105	7.775	0.1100	7.063	0.4597	0.1053	11	1.45	High	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0444	6.560	0.0000	7.532	0.4120	0.1351	14	-2.36	Low	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0486	6.845	0.0900	7.532	0.4120	0.1351	14	-1.67	Low	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0421	7.175	0.0500	7.532	0.4120	0.1351	14	-0.87	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0117	7.407	0.0131	7.532	0.4120	0.1351	14	-0.30	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0402	7.525	0.0300	7.532	0.4120	0.1351	14	-0.02	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0037	7.535	0.0210	7.532	0.4120	0.1351	14	0.01	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0233	7.550	0.0550	7.532	0.4120	0.1351	14	0.04	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0040	7.550	0.1000	7.532	0.4120	0.1351	14	0.04	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0546	7.564	0.1888	7.532	0.4120	0.1351	14	0.08	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0521	7.576	0.0000	7.532	0.4120	0.1351	14	0.10	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0515	7.619	0.5341	7.532	0.4120	0.1351	14	0.21	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0177	7.954	0.2528	7.532	0.4120	0.1351	14	1.02	OK	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0527	8.020	0.0263	7.532	0.4120	0.1351	14	1.18	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				
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0483	8.735	0.5300	7.532	0.4120	0.1351	14	2.92	High	0
148.07	Total S, ICP, test portion as in 2017.02 (7%)	0102	7.362	1.365	7.532	0.4120	0.1351	14	-0.41	OK	1
148.99	Total S, Other (7%)	0450	4.180	0.3200	7.266	0.7285	0.0998	14	-4.24	Low	0
148.99	Total S, Other (7%)	0558	6.240	0.1000	7.266	0.7285	0.0998	14	-1.41	Low	0
148.99	Total S, Other (7%)	0553	6.872	0.0500	7.266	0.7285	0.0998	14	-0.54	OK	0
148.99	Total S, Other (7%)	0354	6.990	0.0200	7.266	0.7285	0.0998	14	-0.38	OK	0
148.99	Total S, Other (7%)	0405	6.990	0.0000	7.266	0.7285	0.0998	14	-0.38	OK	0
148.99	Total S, Other (7%)	0501	7.040	0.0600	7.266	0.7285	0.0998	14	-0.31	OK	0
148.99	Total S, Other (7%)	0520	7.160	0.1200	7.266	0.7285	0.0998	14	-0.14	OK	0
148.99	Total S, Other (7%)	0307	7.190	0.1200	7.266	0.7285	0.0998	14	-0.10	OK	0
148.99	Total S, Other (7%)	0072	7.350	0.2600	7.266	0.7285	0.0998	14	0.12	OK	0
148.99	Total S, Other (7%)	0300	7.429	0.0650	7.266	0.7285	0.0998	14	0.22	OK	0
148.99	Total S, Other (7%)	0433	7.936	0.0320	7.266	0.7285	0.0998	14	0.92	High	0
148.99	Total S, Other (7%)	0523	7.950	0.0200	7.266	0.7285	0.0998	14	0.94	High	0
148.99	Total S, Other (7%)	0220	8.040	0.0000	7.266	0.7285	0.0998	14	1.06	High	0
148.99	Total S, Other (7%)	0482	8.385	0.2300	7.266	0.7285	0.0998	14	1.54	High	0
149.04	S - HNO3 soluble, ICP (%)	0519	6.985	0.0100				2			0
149.04	S - HNO3 soluble, ICP (%)	0524	7.904	0.1609				2			0
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	1.300	0.0000				1			0
151.30	Acid Soluble As, ICP (ppm)	0450	1.600	0.0000	2.638	0.9705	0.2102	5	-0.93		0
151.30	Acid Soluble As, ICP (ppm)	0523	1.915	0.0700	2.638	0.9705	0.2102	5	-0.65		0
151.30	Acid Soluble As, ICP (ppm)	0255	2.377	0.1670	2.638	0.9705	0.2102	5	-0.23		0
151.30	Acid Soluble As, ICP (ppm)	0102	3.481	0.3950	2.638	0.9705	0.2102	5	0.76		0
151.30	Acid Soluble As, ICP (ppm)	0524	3.817	0.4190	2.638	0.9705	0.2102	5	1.06		0
151.30	Acid Soluble As, ICP (ppm)	0555	0.0000	0.0000	2.638	0.9705	0.2102	5			4
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	0300	< 4					0			5
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0136	1.575	0.0700	1.930	0.3749	0.1035	3	-0.77		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0527	1.892	0.0284	1.930	0.3749	0.1035	3	-0.08		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0037	2.322	0.2120	1.930	0.3749	0.1035	3	0.85		0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0515	0.0000	0.0000	1.930	0.3749	0.1035	3			4
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0220	< 1		1.930	0.3749	0.1035	3			5
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0117	< 10		1.930	0.3749	0.1035	3			5
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0368	3.325	0.6774				1			0
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				1			4
151.99	Acid Soluble As, Other (ppm)	0481	1.095	0.0100	1.618	0.4688	0.0100	3	-1.12		0
151.99	Acid Soluble As, Other (ppm)	0519	1.760	0.0200	1.618	0.4688	0.0100	3	0.30		0
151.99	Acid Soluble As, Other (ppm)	0405	2.000	0.0000	1.618	0.4688	0.0100	3	0.81		0
151.99	Acid Soluble As, Other (ppm)	0520	< 0.04		1.618	0.4688	0.0100	3			5
165.00	Acid Soluble B, Spectrophotometric (1.5%)	0055	0.8975	0.0470	1.131	0.1824	0.0569	11	-1.20	Low	0
165.00	Acid Soluble B, Spectrophotometric (1.5%)	0481	0.9400	0.0400	1.131	0.1824	0.0569	11	-0.98	Low	0
165.00	Acid Soluble B, Spectrophotometric (1.5%)	0534	1.010	0.0200	1.131	0.1824	0.0569	11	-0.62	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.5%)	0558	1.035	0.0100	1.131	0.1824	0.0569	11	-0.49	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.5%)	0535	1.050	0.1000	1.131	0.1824	0.0569	11	-0.41	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.5%)	0553	1.105	0.0100	1.131	0.1824	0.0569	11	-0.13	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.5%)	0029	1.188	0.0490	1.131	0.1824	0.0569	11	0.29	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.5%)	0498	1.250	0.1000	1.131	0.1824	0.0569	11	0.61	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.5%)	0556	1.275	0.1500	1.131	0.1824	0.0569	11	0.74	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 (1.5%)	0309	1.285	0.0100	1.131	0.1824	0.0569	11	0.79	OK	0
165.00	Acid Soluble B, Spectrophotometric (1.5%)	0220	3.355	0.0900	1.131	0.1824	0.0569	11	11.41	High	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	0324	0.8130	0.0560	1.004	0.0663	0.0159	10	-2.68	Low	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	0444	0.9450	0.0300	1.004	0.0663	0.0159	10	-0.83	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	0377	0.9670	0.0560	1.004	0.0663	0.0159	10	-0.52	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	0106	0.9908	0.0035	1.004	0.0663	0.0159	10	-0.19	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	0234	1.000	0.0000	1.004	0.0663	0.0159	10	-0.06	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	0354	1.000	0.0000	1.004	0.0663	0.0159	10	-0.06	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	0433	1.019	0.0020	1.004	0.0663	0.0159	10	0.21	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	0136	1.040	0.0000	1.004	0.0663	0.0159	10	0.50	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	0494	1.071	0.0114	1.004	0.0663	0.0159	10	0.94	OK	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	0521	1.240	0.0000	1.004	0.0663	0.0159	10	3.31	High	0
165.30	Acid Soluble B, ICP, test portion in 982.01 (1.5%)	0389	0.8850	0.1300	1.004	0.0663	0.0159	10	-1.67	OK	1
165.99	Acid Soluble B, Other (1.5%)	0524	0.0004	0.0000	0.9829	0.0925	0.0132	21	-10.62	Low	0
165.99	Acid Soluble B, Other (1.5%)	0486	0.8000	0.0000	0.9829	0.0925	0.0132	21	-1.98	Low	0
165.99	Acid Soluble B, Other (1.5%)	0255	0.8910	0.0020	0.9829	0.0925	0.0132	21	-0.99	OK	0
165.99	Acid Soluble B, Other (1.5%)	0472	0.9000	0.0000	0.9829	0.0925	0.0132	21	-0.90	OK	0
165.99	Acid Soluble B, Other (1.5%)	0307	0.9150	0.0900	0.9829	0.0925	0.0132	21	-0.73	OK	0
165.99	Acid Soluble B, Other (1.5%)	0552	0.9150	0.0100	0.9829	0.0925	0.0132	21	-0.73	OK	0
165.99	Acid Soluble B, Other (1.5%)	0421	0.9450	0.0100	0.9829	0.0925	0.0132	21	-0.41	OK	0
165.99	Acid Soluble B, Other (1.5%)	0117	0.9548	0.0071	0.9829	0.0925	0.0132	21	-0.30	OK	0
165.99	Acid Soluble B, Other (1.5%)	0049	0.9696	0.0096	0.9829	0.0925	0.0132	21	-0.14	OK	0
165.99	Acid Soluble B, Other (1.5%)	0300	0.9743	0.0057	0.9829	0.0925	0.0132	21	-0.09	OK	0
165.99	Acid Soluble B, Other (1.5%)	0390	0.9775	0.0250	0.9829	0.0925	0.0132	21	-0.06	OK	0
165.99	Acid Soluble B, Other (1.5%)	0513	1.005	0.0100	0.9829	0.0925	0.0132	21	0.24	OK	0
165.99	Acid Soluble B, Other (1.5%)	0368	1.014	0.0173	0.9829	0.0925	0.0132	21	0.34	OK	0
165.99	Acid Soluble B, Other (1.5%)	0546	1.014	0.0034	0.9829	0.0925	0.0132	21	0.34	OK	0
165.99	Acid Soluble B, Other (1.5%)	0360	1.017	0.0040	0.9829	0.0925	0.0132	21	0.37	OK	0
165.99	Acid Soluble B, Other (1.5%)	0482	1.020	0.0000	0.9829	0.0925	0.0132	21	0.40	OK	0
165.99	Acid Soluble B, Other (1.5%)	0527	1.036	0.0041	0.9829	0.0925	0.0132	21	0.57	OK	0
165.99	Acid Soluble B, Other (1.5%)	0291	1.045	0.0100	0.9829	0.0925	0.0132	21	0.67	OK	0
165.99	Acid Soluble B, Other (1.5%)	0042	1.115	0.0300	0.9829	0.0925	0.0132	21	1.43	OK	0
165.99	Acid Soluble B, Other (1.5%)	0483	1.180	0.0200	0.9829	0.0925	0.0132	21	2.13	High	0
165.99	Acid Soluble B, Other (1.5%)	0559	1.340	0.0200	0.9829	0.0925	0.0132	21	3.86	High	0
165.99	Acid Soluble B, Other (1.5%)	0520	1.500	0.2000	0.9829	0.0925	0.0132	21	5.59	High	1
165.99	Acid Soluble B, Other (1.5%)	0515	1.633	0.1949	0.9829	0.0925	0.0132	21	7.03	High	1
171.00	Water Soluble B, AA, JAOAC 52.950 (%)	0536	0.9550	0.0100				1			0
171.10	Water Soluble B, Spectrophotometric (%)	0533	0.5350	0.0300	0.9840	0.3311	0.0400	5	-1.36		0
171.10	Water Soluble B, Spectrophotometric (%)	0531	0.9600	0.0400	0.9840	0.3311	0.0400	5	-0.07		0
171.10	Water Soluble B, Spectrophotometric (%)	0535	0.9700	0.0200	0.9840	0.3311	0.0400	5	-0.04		0
171.10	Water Soluble B, Spectrophotometric (%)	0551	0.9850	0.0300	0.9840	0.3311	0.0400	5	0.00		0
171.10	Water Soluble B, Spectrophotometric (%)	0532	1.470	0.0800	0.9840	0.3311	0.0400	5	1.47		0
171.99	Water Soluble B, Other (%)	0444	0.7600	0.0000	1.028	0.3779	0.0260	3	-0.71		0
171.99	Water Soluble B, Other (%)	0027	0.8630	0.0380	1.028	0.3779	0.0260	3	-0.44		0
171.99	Water Soluble B, Other (%)	0519	1.460	0.0400	1.028	0.3779	0.0260	3	1.14		0
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	0.8500	0.1000				1			0
181.30	Acid Soluble Cd, ICP (ppm)	0450	0.4500	0.1000	0.5674	0.1253	0.0630	7	-0.85	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				
181.30	Acid Soluble Cd, ICP (ppm)	0389	0.4745	0.0650	0.5674	0.1253	0.0630	7	-0.67	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0035	0.4830	0.0280	0.5674	0.1253	0.0630	7	-0.61	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0523	0.5650	0.0180	0.5674	0.1253	0.0630	7	-0.02	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0524	0.5878	0.0439	0.5674	0.1253	0.0630	7	0.15	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0255	0.6565	0.0530	0.5674	0.1253	0.0630	7	0.64	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0102	1.095	0.1330	0.5674	0.1253	0.0630	7	3.80	NA	0
181.30	Acid Soluble Cd, ICP (ppm)	0555	0.0000	0.0000	0.5674	0.1253	0.0630	7			4
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	0300	< 0.5					0			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0521	0.5013	0.0000				2			0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0527	0.5393	0.0195				2			0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0515	0.0000	0.0000				2			4
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0220	< 0.1					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	0.2126	0.0305				1			0
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				1			4
181.99	Acid Soluble Cd, Other (ppm)	0405	0.4450	0.0100				2			0
181.99	Acid Soluble Cd, Other (ppm)	0519	0.5900	0.0200				2			0
181.99	Acid Soluble Cd, Other (ppm)	0520	< 0.04					2			5
181.99	Acid Soluble Cd, Other (ppm)	0481	< 0.5					2			5
191.30	Acid Soluble Cr, ICP (ppm)	0524	11.48	0.0100	23.59	6.314	1.185	6	-1.71	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0102	21.06	0.5010	23.59	6.314	1.185	6	-0.36	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0523	24.12	0.1000	23.59	6.314	1.185	6	0.07	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0482	24.35	3.300	23.59	6.314	1.185	6	0.11	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0035	28.40	2.200	23.59	6.314	1.185	6	0.68	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0450	29.50	1.000	23.59	6.314	1.185	6	0.83	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0389	12.26	21.02	23.59	6.314	1.185	6	-1.60	NA	1
191.30	Acid Soluble Cr, ICP (ppm)	0555	0.0000	0.0000	23.59	6.314	1.185	6			4
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	0300	29.07	0.7900				1			0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0527	32.20	0.4143	36.25	5.749	3.319	5	-0.71		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0117	33.65	0.4590	36.25	5.749	3.319	5	-0.45		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0037	33.99	0.1540	36.25	5.749	3.319	5	-0.39		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0220	35.05	2.700	36.25	5.749	3.319	5	-0.21		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0515	46.38	12.87	36.25	5.749	3.319	5	1.76		0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0368	22.73	0.5316				2			0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0515	34.67	0.1120				2			0
191.99	Acid Soluble Cr, Other (ppm)	0519	12.81	0.0200	22.38	6.775	0.9050	4	-1.41		0
191.99	Acid Soluble Cr, Other (ppm)	0405	23.00	2.000	22.38	6.775	0.9050	4	0.09		0
191.99	Acid Soluble Cr, Other (ppm)	0520	25.15	1.300	22.38	6.775	0.9050	4	0.41		0
191.99	Acid Soluble Cr, Other (ppm)	0481	28.55	0.3000	22.38	6.775	0.9050	4	0.91		0
202.00	Acid Soluble Co, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	2.000	0.0000				1			0
202.30	Acid Soluble Co, ICP (ppm)	0482	15.10	1.600	16.44	1.413	0.9895	6	-0.85	OK	0
202.30	Acid Soluble Co, ICP (ppm)	0102	15.21	2.731	16.44	1.413	0.9895	6	-0.78	OK	0
202.30	Acid Soluble Co, ICP (ppm)	0524	15.65	0.9062	16.44	1.413	0.9895	6	-0.50	OK	0
202.30	Acid Soluble Co, ICP (ppm)	0035	17.40	0.2000	16.44	1.413	0.9895	6	0.60	OK	0
202.30	Acid Soluble Co, ICP (ppm)	0523	17.62	0.3000	16.44	1.413	0.9895	6	0.74	OK	0
202.30	Acid Soluble Co, ICP (ppm)	0389	17.67	0.2000	16.44	1.413	0.9895	6	0.77	OK	0
202.30	Acid Soluble Co, ICP (ppm)	0555	0.0000	0.0000	16.44	1.413	0.9895	6			4

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				
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	0300	21.14	0.0300				1			0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0521	12.78	0.0000	21.51	2.289	1.003	8	-3.49	Low	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0220	19.65	0.3000	21.51	2.289	1.003	8	-0.74	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0515	20.12	2.343	21.51	2.289	1.003	8	-0.56	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0233	21.80	0.1500	21.51	2.289	1.003	8	0.11	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0527	22.33	0.6589	21.51	2.289	1.003	8	0.33	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0546	23.06	4.061	21.51	2.289	1.003	8	0.62	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0117	23.41	0.1920	21.51	2.289	1.003	8	0.76	OK	0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0037	23.65	0.3190	21.51	2.289	1.003	8	0.86	OK	0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0368	16.32	0.8453				2			0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0515	19.42	2.637				2			0
202.99	Acid Soluble Co, Other (ppm)	0519	7.545	0.0100	15.52	5.770	0.4604	5	-1.38		0
202.99	Acid Soluble Co, Other (ppm)	0481	14.20	0.4000	15.52	5.770	0.4604	5	-0.23		0
202.99	Acid Soluble Co, Other (ppm)	0520	15.04	0.9200	15.52	5.770	0.4604	5	-0.08		0
202.99	Acid Soluble Co, Other (ppm)	0405	17.25	0.5000	15.52	5.770	0.4604	5	0.30		0
202.99	Acid Soluble Co, Other (ppm)	0255	23.56	0.4720	15.52	5.770	0.4604	5	1.39		0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (1%)	0513	0.7200	0.0200	0.7553	0.0291	0.0189	10	-1.13	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (1%)	0485	0.7245	0.0118	0.7553	0.0291	0.0189	10	-0.98	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (1%)	0551	0.7300	0.0200	0.7553	0.0291	0.0189	10	-0.81	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (1%)	0105	0.7495	0.0030	0.7553	0.0291	0.0189	10	-0.19	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (1%)	0040	0.7538	0.0191	0.7553	0.0291	0.0189	10	-0.05	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (1%)	0531	0.7600	0.0400	0.7553	0.0291	0.0189	10	0.15	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (1%)	0029	0.7614	0.0047	0.7553	0.0291	0.0189	10	0.19	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (1%)	0535	0.7700	0.0400	0.7553	0.0291	0.0189	10	0.47	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (1%)	0534	0.7850	0.0100	0.7553	0.0291	0.0189	10	0.95	OK	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (1%)	0553	0.8150	0.0200	0.7553	0.0291	0.0189	10	1.91	OK	0
221.03	Acid Soluble Cu, AA, 965.09, test portion 2006.03A-C w/dual acid (1%)	0526	0.5538	0.0254				2			0
221.03	Acid Soluble Cu, AA, 965.09, test portion 2006.03A-C w/dual acid (1%)	0105	0.7695	0.0230				2			0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0552	0.6150	0.0300	0.7629	0.0730	0.0254	20	-2.03	Low	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0255	0.6505	0.0050	0.7629	0.0730	0.0254	20	-1.54	Low	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0324	0.6845	0.0110	0.7629	0.0730	0.0254	20	-1.07	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0444	0.6850	0.0500	0.7629	0.0730	0.0254	20	-1.07	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0402	0.7150	0.0100	0.7629	0.0730	0.0254	20	-0.66	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0472	0.7200	0.0000	0.7629	0.0730	0.0254	20	-0.59	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0450	0.7450	0.0700	0.7629	0.0730	0.0254	20	-0.24	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0433	0.7470	0.0020	0.7629	0.0730	0.0254	20	-0.22	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0360	0.7505	0.0170	0.7629	0.0730	0.0254	20	-0.17	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0354	0.7650	0.0100	0.7629	0.0730	0.0254	20	0.03	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0102	0.7682	0.0992	0.7629	0.0730	0.0254	20	0.07	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0095	0.7750	0.0100	0.7629	0.0730	0.0254	20	0.17	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0377	0.7820	0.0060	0.7629	0.0730	0.0254	20	0.26	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0234	0.8000	0.0000	0.7629	0.0730	0.0254	20	0.51	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0035	0.8145	0.0290	0.7629	0.0730	0.0254	20	0.71	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0482	0.8150	0.0100	0.7629	0.0730	0.0254	20	0.71	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0049	0.8182	0.0851	0.7629	0.0730	0.0254	20	0.76	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0157	0.8210	0.0480	0.7629	0.0730	0.0254	20	0.80	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0291	0.9250	0.0100	0.7629	0.0730	0.0254	20	2.22	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				
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (1%)	0483	0.9285	0.0050	0.7629	0.0730	0.0254	20	2.27	High	0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (1%)	0300	0.7497	0.0042	0.7936	0.0644	0.0024	3	-0.68		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (1%)	0220	0.7635	0.0030	0.7936	0.0644	0.0024	3	-0.47		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (1%)	0521	0.8675	0.0000	0.7936	0.0644	0.0024	3	1.15		0
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	0055	0.6550	0.0100	0.7593	0.0554	0.0140	11	-1.88	Low	0
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	0486	0.6800	0.0000	0.7593	0.0554	0.0140	11	-1.43	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	0106	0.7261	0.0033	0.7593	0.0554	0.0140	11	-0.60	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	0233	0.7391	0.0032	0.7593	0.0554	0.0140	11	-0.37	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	0177	0.7497	0.0137	0.7593	0.0554	0.0140	11	-0.18	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	0546	0.7840	0.0000	0.7593	0.0554	0.0140	11	0.45	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	0527	0.7905	0.0355	0.7593	0.0554	0.0140	11	0.56	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	0037	0.7940	0.0100	0.7593	0.0554	0.0140	11	0.63	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	0117	0.7983	0.0081	0.7593	0.0554	0.0140	11	0.70	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	0136	0.8000	0.0000	0.7593	0.0554	0.0140	11	0.73	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	0555	0.8150	0.0700	0.7593	0.0554	0.0140	11	1.01	OK	0
221.33	Acid Soluble Cu, ICP, 2017.02 (1%)	0515	1.127	0.2384	0.7593	0.0554	0.0140	11	6.64	High	1
221.99	Acid Soluble Cu, Other (1%)	0405	0.7005	0.0390	0.7872	0.0812	0.0235	14	-1.07	Low	0
221.99	Acid Soluble Cu, Other (1%)	0481	0.7100	0.0200	0.7872	0.0812	0.0235	14	-0.95	OK	0
221.99	Acid Soluble Cu, Other (1%)	0559	0.7100	0.0200	0.7872	0.0812	0.0235	14	-0.95	OK	0
221.99	Acid Soluble Cu, Other (1%)	0523	0.7330	0.0060	0.7872	0.0812	0.0235	14	-0.67	OK	0
221.99	Acid Soluble Cu, Other (1%)	0558	0.7400	0.0200	0.7872	0.0812	0.0235	14	-0.58	OK	0
221.99	Acid Soluble Cu, Other (1%)	0390	0.7635	0.0150	0.7872	0.0812	0.0235	14	-0.29	OK	0
221.99	Acid Soluble Cu, Other (1%)	0368	0.7672	0.0034	0.7872	0.0812	0.0235	14	-0.25	OK	0
221.99	Acid Soluble Cu, Other (1%)	0389	0.7800	0.0000	0.7872	0.0812	0.0235	14	-0.09	OK	0
221.99	Acid Soluble Cu, Other (1%)	0524	0.7870	0.0052	0.7872	0.0812	0.0235	14	0.00	OK	0
221.99	Acid Soluble Cu, Other (1%)	0027	0.7910	0.0600	0.7872	0.0812	0.0235	14	0.05	OK	0
221.99	Acid Soluble Cu, Other (1%)	0042	0.8400	0.0200	0.7872	0.0812	0.0235	14	0.65	OK	0
221.99	Acid Soluble Cu, Other (1%)	0520	0.8800	0.0200	0.7872	0.0812	0.0235	14	1.14	High	0
221.99	Acid Soluble Cu, Other (1%)	0519	0.9700	0.0400	0.7872	0.0812	0.0235	14	2.25	High	0
221.99	Acid Soluble Cu, Other (1%)	0532	0.9900	0.0600	0.7872	0.0812	0.0235	14	2.50	High	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	0513	0.6350	0.0500	0.9627	0.0566	0.0283	11	-5.42	Low	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	0485	0.8756	0.0048	0.9627	0.0566	0.0283	11	-1.44	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	0534	0.9400	0.0000	0.9627	0.0566	0.0283	11	-0.38	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	0040	0.9650	0.0100	0.9627	0.0566	0.0283	11	0.04	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	0535	0.9650	0.0300	0.9627	0.0566	0.0283	11	0.04	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	0531	0.9700	0.0200	0.9627	0.0566	0.0283	11	0.12	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	0536	0.9700	0.0400	0.9627	0.0566	0.0283	11	0.12	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	0551	0.9800	0.0400	0.9627	0.0566	0.0283	11	0.29	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	0105	0.9931	0.0438	0.9627	0.0566	0.0283	11	0.50	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	0029	1.006	0.0525	0.9627	0.0566	0.0283	11	0.71	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (1%)	0553	1.045	0.0200	0.9627	0.0566	0.0283	11	1.36	OK	0
241.03	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C w/dual acid (1%)	0498	0.8000	0.0000	0.8729	0.0714	0.0249	3	-1.02		0
241.03	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C w/dual acid (1%)	0105	0.8760	0.0140	0.8729	0.0714	0.0249	3	0.04		0
241.03	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C w/dual acid (1%)	0526	0.9427	0.0607	0.8729	0.0714	0.0249	3	0.98		0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0552	0.7450	0.0700	0.9449	0.0570	0.0206	20	-3.51	Low	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0377	0.8475	0.0110	0.9449	0.0570	0.0206	20	-1.71	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0472	0.8850	0.0100	0.9449	0.0570	0.0206	20	-1.05	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				
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0444	0.8900	0.0200	0.9449	0.0570	0.0206	20	-0.96	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0234	0.9000	0.0000	0.9449	0.0570	0.0206	20	-0.79	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0324	0.9220	0.0120	0.9449	0.0570	0.0206	20	-0.40	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0419	0.9370	0.0160	0.9449	0.0570	0.0206	20	-0.14	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0433	0.9370	0.0000	0.9449	0.0570	0.0206	20	-0.14	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0102	0.9398	0.0365	0.9449	0.0570	0.0206	20	-0.09	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0255	0.9435	0.0110	0.9449	0.0570	0.0206	20	-0.03	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0390	0.9490	0.0140	0.9449	0.0570	0.0206	20	0.07	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0360	0.9530	0.0060	0.9449	0.0570	0.0206	20	0.14	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0402	0.9550	0.0100	0.9449	0.0570	0.0206	20	0.18	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0354	0.9600	0.0200	0.9449	0.0570	0.0206	20	0.26	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0095	0.9650	0.0300	0.9449	0.0570	0.0206	20	0.35	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0049	0.9659	0.0085	0.9449	0.0570	0.0206	20	0.37	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0035	0.9970	0.0260	0.9449	0.0570	0.0206	20	0.91	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0482	1.020	0.0400	0.9449	0.0570	0.0206	20	1.32	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0291	1.090	0.0400	0.9449	0.0570	0.0206	20	2.55	High	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (1%)	0483	1.145	0.0300	0.9449	0.0570	0.0206	20	3.51	High	0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (1%)	0300	0.9011	0.0029	0.9659	0.0629	0.0010	3	-1.03		0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (1%)	0220	0.9700	0.0000	0.9659	0.0629	0.0010	3	0.06		0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (1%)	0521	1.027	0.0000	0.9659	0.0629	0.0010	3	0.97		0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0486	0.7600	0.0000	0.9158	0.0537	0.0174	13	-2.90	Low	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0034	0.8475	0.0370	0.9158	0.0537	0.0174	13	-1.27	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0106	0.8639	0.0076	0.9158	0.0537	0.0174	13	-0.97	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0055	0.8800	0.0000	0.9158	0.0537	0.0174	13	-0.67	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0555	0.9100	0.0600	0.9158	0.0537	0.0174	13	-0.11	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0561	0.9150	0.0100	0.9158	0.0537	0.0174	13	-0.01	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0136	0.9200	0.0200	0.9158	0.0537	0.0174	13	0.08	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0233	0.9365	0.0240	0.9158	0.0537	0.0174	13	0.39	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0117	0.9409	0.0090	0.9158	0.0537	0.0174	13	0.47	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0177	0.9512	0.0049	0.9158	0.0537	0.0174	13	0.66	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0037	0.9535	0.0010	0.9158	0.0537	0.0174	13	0.70	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0546	0.9550	0.0137	0.9158	0.0537	0.0174	13	0.73	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0527	1.024	0.0386	0.9158	0.0537	0.0174	13	2.01	High	0
241.33	Acid Soluble Fe, ICP, 2017.02 (1%)	0515	1.544	1.224	0.9158	0.0537	0.0174	13	11.69	High	1
241.99	Acid Soluble Fe, Other (1%)	0558	0.7900	0.0200	0.9247	0.0910	0.0226	14	-1.48	Low	0
241.99	Acid Soluble Fe, Other (1%)	0520	0.8150	0.0100	0.9247	0.0910	0.0226	14	-1.21	Low	0
241.99	Acid Soluble Fe, Other (1%)	0405	0.8250	0.0500	0.9247	0.0910	0.0226	14	-1.10	Low	0
241.99	Acid Soluble Fe, Other (1%)	0481	0.8350	0.0100	0.9247	0.0910	0.0226	14	-0.99	OK	0
241.99	Acid Soluble Fe, Other (1%)	0027	0.9010	0.0660	0.9247	0.0910	0.0226	14	-0.26	OK	0
241.99	Acid Soluble Fe, Other (1%)	0042	0.9350	0.0100	0.9247	0.0910	0.0226	14	0.11	OK	0
241.99	Acid Soluble Fe, Other (1%)	0389	0.9400	0.0200	0.9247	0.0910	0.0226	14	0.17	OK	0
241.99	Acid Soluble Fe, Other (1%)	0523	0.9480	0.0280	0.9247	0.0910	0.0226	14	0.26	OK	0
241.99	Acid Soluble Fe, Other (1%)	0368	0.9577	0.0085	0.9247	0.0910	0.0226	14	0.36	OK	0
241.99	Acid Soluble Fe, Other (1%)	0524	0.9638	0.0007	0.9247	0.0910	0.0226	14	0.43	OK	0
241.99	Acid Soluble Fe, Other (1%)	0559	0.9800	0.0200	0.9247	0.0910	0.0226	14	0.61	OK	0
241.99	Acid Soluble Fe, Other (1%)	0519	1.000	0.0200	0.9247	0.0910	0.0226	14	0.83	OK	0
241.99	Acid Soluble Fe, Other (1%)	0515	1.001	0.0231	0.9247	0.0910	0.0226	14	0.84	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				
241.99	Acid Soluble Fe, Other (1%)	0532	1.055	0.0300	0.9247	0.0910	0.0226	14	1.43	High	0
251.30	Acid Soluble Pb, ICP (ppm)	0389	1.681	0.5980	4.311	3.506	0.2508	7	-0.68	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0450	1.850	0.3000	4.311	3.506	0.2508	7	-0.63	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0255	2.517	0.0520	4.311	3.506	0.2508	7	-0.46	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0524	2.621	0.0753	4.311	3.506	0.2508	7	-0.44	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0523	4.360	0.0400	4.311	3.506	0.2508	7	0.01	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0035	7.580	0.3800	4.311	3.506	0.2508	7	0.84	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0482	9.565	0.3100	4.311	3.506	0.2508	7	1.36	NA	0
251.30	Acid Soluble Pb, ICP (ppm)	0102	10.18	2.323	4.311	3.506	0.2508	7	1.51	NA	1
251.30	Acid Soluble Pb, ICP (ppm)	0555	0.0000	0.0000	4.311	3.506	0.2508	7			4
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	0300	< 10					0			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0527	2.078	0.0542	2.684	0.9021	1.044	3	-0.67		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0037	2.253	0.2720	2.684	0.9021	1.044	3	-0.48		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0515	3.721	2.805	2.684	0.9021	1.044	3	1.15		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0220	< 1		2.684	0.9021	1.044	3			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0117	< 5		2.684	0.9021	1.044	3			5
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0515	1.883	0.1020				1			0
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0368	< 0.8					1			5
251.99	Acid Soluble Pb, Other (ppm)	0481	1.740	0.1200	1.957	0.1882	0.1533	3	-1.15		0
251.99	Acid Soluble Pb, Other (ppm)	0405	2.050	0.3000	1.957	0.1882	0.1533	3	0.50		0
251.99	Acid Soluble Pb, Other (ppm)	0519	2.080	0.0400	1.957	0.1882	0.1533	3	0.66		0
251.99	Acid Soluble Pb, Other (ppm)	0520	< 0.04		1.957	0.1882	0.1533	3			5
261.00	Acid Soluble Mn, AA, Mn2+ only (1.5%)	0553	1.558	0.0250				1			0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1.5%)	0531	0.9700	0.0600	1.089	0.0851	0.0343	10	-1.30	Low	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1.5%)	0513	1.025	0.0100	1.089	0.0851	0.0343	10	-0.70	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1.5%)	0551	1.035	0.0300	1.089	0.0851	0.0343	10	-0.59	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1.5%)	0536	1.045	0.0900	1.089	0.0851	0.0343	10	-0.48	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1.5%)	0535	1.050	0.1000	1.089	0.0851	0.0343	10	-0.42	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1.5%)	0029	1.116	0.0110	1.089	0.0851	0.0343	10	0.29	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1.5%)	0105	1.133	0.0180	1.089	0.0851	0.0343	10	0.48	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1.5%)	0485	1.149	0.0190	1.089	0.0851	0.0343	10	0.65	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1.5%)	0040	1.150	0.0050	1.089	0.0851	0.0343	10	0.66	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (1.5%)	0534	1.220	0.0000	1.089	0.0851	0.0343	10	1.43	High	0
261.15	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C w/dual acid ... (1.5%)	0526	0.6882	0.0000				2			0
261.15	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C w/dual acid ... (1.5%)	0105	1.284	0.0120				2			0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1.5%)	0102	1.073	0.1410	1.143	0.0734	0.0404	8	-0.87	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1.5%)	0444	1.085	0.0500	1.143	0.0734	0.0404	8	-0.72	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1.5%)	0433	1.100	0.0020	1.143	0.0734	0.0404	8	-0.53	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1.5%)	0472	1.125	0.0100	1.143	0.0734	0.0404	8	-0.22	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1.5%)	0390	1.135	0.0100	1.143	0.0734	0.0404	8	-0.09	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1.5%)	0354	1.145	0.0100	1.143	0.0734	0.0404	8	0.03	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1.5%)	0035	1.225	0.0900	1.143	0.0734	0.0404	8	1.03	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (1.5%)	0291	1.315	0.0100	1.143	0.0734	0.0404	8	2.15	High	0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (1.5%)	0324	1.110	0.0200	1.160	0.0654	0.0428	4	-0.77		0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (1.5%)	0360	1.126	0.0010	1.160	0.0654	0.0428	4	-0.53		0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (1.5%)	0234	1.150	0.1000	1.160	0.0654	0.0428	4	-0.15		0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (1.5%)	0482	1.255	0.0500	1.160	0.0654	0.0428	4	1.45		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				
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1.5%)	0552	0.9250	0.0500	1.159	0.1770	0.0212	6	-1.18	Low	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1.5%)	0300	1.100	0.0060	1.159	0.1770	0.0212	6	-0.29	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1.5%)	0402	1.165	0.0300	1.159	0.1770	0.0212	6	0.03	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1.5%)	0049	1.172	0.0140	1.159	0.1770	0.0212	6	0.07	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1.5%)	0377	1.180	0.0070	1.159	0.1770	0.0212	6	0.11	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (1.5%)	0483	1.410	0.0200	1.159	0.1770	0.0212	6	1.26	High	0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (1.5%)	0220	1.090	0.0000				2			0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (1.5%)	0521	1.426	0.0000				2			0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0486	0.8750	0.0100	1.100	0.0621	0.0250	13	-3.62	Low	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0055	1.030	0.0400	1.100	0.0621	0.0250	13	-1.13	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0106	1.031	0.0051	1.100	0.0621	0.0250	13	-1.12	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0034	1.065	0.0620	1.100	0.0621	0.0250	13	-0.57	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0561	1.090	0.0000	1.100	0.0621	0.0250	13	-0.16	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0233	1.099	0.0100	1.100	0.0621	0.0250	13	-0.02	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0136	1.100	0.0000	1.100	0.0621	0.0250	13	0.00	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0546	1.124	0.0089	1.100	0.0621	0.0250	13	0.39	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0037	1.126	0.0030	1.100	0.0621	0.0250	13	0.41	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0527	1.144	0.0394	1.100	0.0621	0.0250	13	0.70	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0177	1.145	0.0460	1.100	0.0621	0.0250	13	0.72	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0117	1.149	0.0303	1.100	0.0621	0.0250	13	0.79	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0555	1.375	0.0700	1.100	0.0621	0.0250	13	4.42	High	0
261.35	Acid Soluble Mn, ICP, 2017.02 (1.5%)	0515	1.539	0.6280	1.100	0.0621	0.0250	13	7.06	High	1
261.99	Acid Soluble Mn, Other (1.5%)	0481	0.5750	0.0300	1.141	0.1656	0.0309	15	-3.42	Low	0
261.99	Acid Soluble Mn, Other (1.5%)	0405	0.9432	0.0495	1.141	0.1656	0.0309	15	-1.20	Low	0
261.99	Acid Soluble Mn, Other (1.5%)	0558	1.055	0.0500	1.141	0.1656	0.0309	15	-0.52	OK	0
261.99	Acid Soluble Mn, Other (1.5%)	0559	1.070	0.0200	1.141	0.1656	0.0309	15	-0.43	OK	0
261.99	Acid Soluble Mn, Other (1.5%)	0255	1.099	0.0080	1.141	0.1656	0.0309	15	-0.26	OK	0
261.99	Acid Soluble Mn, Other (1.5%)	0368	1.111	0.0214	1.141	0.1656	0.0309	15	-0.18	OK	0
261.99	Acid Soluble Mn, Other (1.5%)	0027	1.115	0.0600	1.141	0.1656	0.0309	15	-0.16	OK	0
261.99	Acid Soluble Mn, Other (1.5%)	0095	1.115	0.0300	1.141	0.1656	0.0309	15	-0.16	OK	0
261.99	Acid Soluble Mn, Other (1.5%)	0523	1.119	0.0100	1.141	0.1656	0.0309	15	-0.13	OK	0
261.99	Acid Soluble Mn, Other (1.5%)	0042	1.120	0.0200	1.141	0.1656	0.0309	15	-0.13	OK	0
261.99	Acid Soluble Mn, Other (1.5%)	0389	1.140	0.0000	1.141	0.1656	0.0309	15	-0.01	OK	0
261.99	Acid Soluble Mn, Other (1.5%)	0524	1.185	0.0247	1.141	0.1656	0.0309	15	0.27	OK	0
261.99	Acid Soluble Mn, Other (1.5%)	0520	1.375	0.0700	1.141	0.1656	0.0309	15	1.41	High	0
261.99	Acid Soluble Mn, Other (1.5%)	0519	1.500	0.0200	1.141	0.1656	0.0309	15	2.17	High	0
261.99	Acid Soluble Mn, Other (1.5%)	0532	1.505	0.0500	1.141	0.1656	0.0309	15	2.20	High	0
271.00	Water Soluble Mn, AA (%)	0027	0.8845	0.0670				1			0
271.30	Water Soluble Mn, ICP, Ext. 972.03 (%)	0444	0.5850	0.0100				1			0
281.00	Acid Soluble Hg, AA (ppm)	0117	< 0.2					0			5
281.30	Acid Soluble Hg, ICP (ppm)	0515	0.0000	0.0000				0			4
281.30	Acid Soluble Hg, ICP (ppm)	0450	0.0150	0.0300				0			4
281.30	Acid Soluble Hg, ICP (ppm)	0527	< 0.0001					0			5
281.99	Acid Soluble Hg, Other (ppm)	0519	0.0150	0.0100	7.917	13.67	0.0715	3	-0.47		0
281.99	Acid Soluble Hg, Other (ppm)	0368	0.0347	0.0046	7.917	13.67	0.0715	3	-0.47		0
281.99	Acid Soluble Hg, Other (ppm)	0035	23.70	0.2000	7.917	13.67	0.0715	3	0.94		0
281.99	Acid Soluble Hg, Other (ppm)	0520	< 0.007		7.917	13.67	0.0715	3			5

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				
281.99	Acid Soluble Hg, Other (ppm)	0405	< 0.01		7.917	13.67	0.0715	3			5
281.99	Acid Soluble Hg, Other (ppm)	0481	< 0.5		7.917	13.67	0.0715	3			5
289.30	Acid Soluble Mo, ICP (ppm)	0519	3.345	0.0900	5.465	1.851	0.9264	5	-1.00		0
289.30	Acid Soluble Mo, ICP (ppm)	0102	4.805	0.6410	5.465	1.851	0.9264	5	-0.31		0
289.30	Acid Soluble Mo, ICP (ppm)	0524	5.092	0.3242	5.465	1.851	0.9264	5	-0.18		0
289.30	Acid Soluble Mo, ICP (ppm)	0255	5.689	0.8870	5.465	1.851	0.9264	5	0.11		0
289.30	Acid Soluble Mo, ICP (ppm)	0035	8.395	2.690	5.465	1.851	0.9264	5	1.38		0
289.30	Acid Soluble Mo, ICP (ppm)	0555	0.0000	0.0000	5.465	1.851	0.9264	5			4
289.30	Acid Soluble Mo, ICP (ppm)	0049	< 5		5.465	1.851	0.9264	5			5
289.32	Acid Soluble Mo, ICP, 2006.03 (ppm)	0300	5.974	0.1090				1			0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0106	0.0006	0.0000	6.066	1.216	0.3718	6	-4.44	Low	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0220	5.450	0.3000	6.066	1.216	0.3718	6	-0.45	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0546	6.046	1.157	6.066	1.216	0.3718	6	-0.01	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0117	6.812	0.2300	6.066	1.216	0.3718	6	0.55	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0037	6.824	0.1380	6.066	1.216	0.3718	6	0.56	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0527	7.020	0.4059	6.066	1.216	0.3718	6	0.70	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0515	6.333	3.283	6.066	1.216	0.3718	6	0.20	OK	1
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0368	4.484	0.3788				2			0
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0515	4.508	0.7460				2			0
289.99	Acid Soluble Mo, Other (ppm)	0520	5.025	0.2900				2			0
289.99	Acid Soluble Mo, Other (ppm)	0405	5.765	0.2300				2			0
289.99	Acid Soluble Mo, Other (ppm)	0481	< 50					2			5
291.00	Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid (ppm)	0535	24.00	2.000				1			0
291.30	Acid Soluble Ni, ICP (ppm)	0521	11.00	0.0000	18.67	5.813	2.253	6	-1.18	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0482	16.75	1.100	18.67	5.813	2.253	6	-0.29	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0524	17.29	1.164	18.67	5.813	2.253	6	-0.21	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0102	18.69	3.852	18.67	5.813	2.253	6	0.00	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0035	22.30	3.400	18.67	5.813	2.253	6	0.56	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0450	26.00	4.000	18.67	5.813	2.253	6	1.12	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0555	0.0000	0.0000	18.67	5.813	2.253	6			4
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	0300	23.10	0.4900				1			0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0117	24.06	0.1520	25.45	1.181	1.834	6	-1.05	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0220	24.80	1.000	25.45	1.181	1.834	6	-0.49	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0515	25.44	6.490	25.45	1.181	1.834	6	-0.01	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0527	25.45	0.2281	25.45	1.181	1.834	6	0.00	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0037	25.81	0.1520	25.45	1.181	1.834	6	0.27	NA	0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0233	27.16	2.980	25.45	1.181	1.834	6	1.29	NA	0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0368	21.61	0.2064				2			0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0515	23.23	0.6510				2			0
291.99	Acid Soluble Ni, Other (ppm)	0520	16.90	0.6000	33.14	28.25	2.106	5	-0.57		0
291.99	Acid Soluble Ni, Other (ppm)	0519	20.31	0.0100	33.14	28.25	2.106	5	-0.45		0
291.99	Acid Soluble Ni, Other (ppm)	0405	21.80	1.400	33.14	28.25	2.106	5	-0.40		0
291.99	Acid Soluble Ni, Other (ppm)	0481	23.20	1.000	33.14	28.25	2.106	5	-0.35		0
291.99	Acid Soluble Ni, Other (ppm)	0255	83.50	7.519	33.14	28.25	2.106	5	1.78		0
301.30	Acid Soluble Se, ICP (ppm)	0523	4.645	0.0100				2			0
301.30	Acid Soluble Se, ICP (ppm)	0524	6.863	0.2450				2			0
301.30	Acid Soluble Se, ICP (ppm)	0555	0.0000	0.0000				2			4

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				
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	0300	3.627	0.0880				1			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0527	2.120	0.9473	7.542	4.698	0.8714	3	-1.15		0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0037	10.11	1.267	7.542	4.698	0.8714	3	0.55		0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0220	10.40	0.4000	7.542	4.698	0.8714	3	0.61		0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0515	0.0000	0.0000	7.542	4.698	0.8714	3			4
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	< 1.4					0			5
301.99	Acid Soluble Se, Other (ppm)	0519	1.705	0.0100	3.274	1.722	0.1653	3	-0.91		0
301.99	Acid Soluble Se, Other (ppm)	0405	3.000	0.0000	3.274	1.722	0.1653	3	-0.16		0
301.99	Acid Soluble Se, Other (ppm)	0255	5.117	0.4860	3.274	1.722	0.1653	3	1.07		0
301.99	Acid Soluble Se, Other (ppm)	0481	< 0.15		3.274	1.722	0.1653	3			5
311.32	Sodium, ICP, 2006.03 test portion (%)	0521	1.612	0.0000				1			0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0136	1.345	0.0500	1.441	0.0854	0.0330	5	-1.12		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0035	1.350	0.0200	1.441	0.0854	0.0330	5	-1.06		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0117	1.494	0.0181	1.441	0.0854	0.0330	5	0.62		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0527	1.503	0.0608	1.441	0.0854	0.0330	5	0.73		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0546	1.512	0.0162	1.441	0.0854	0.0330	5	0.83		0
311.99	Sodium, Other (%)	0354	1.485	0.0300				2			0
311.99	Sodium, Other (%)	0482	1.495	0.0300				2			0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	0513	1.350	0.0200	1.495	0.2148	0.0428	12	-0.68	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	0535	1.370	0.0400	1.495	0.2148	0.0428	12	-0.58	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	0531	1.380	0.0200	1.495	0.2148	0.0428	12	-0.54	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	0536	1.380	0.0400	1.495	0.2148	0.0428	12	-0.54	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	0485	1.383	0.0890	1.495	0.2148	0.0428	12	-0.52	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	0040	1.398	0.0160	1.495	0.2148	0.0428	12	-0.45	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	0551	1.400	0.0600	1.495	0.2148	0.0428	12	-0.44	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	0029	1.418	0.0880	1.495	0.2148	0.0428	12	-0.36	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	0105	1.443	0.0450	1.495	0.2148	0.0428	12	-0.24	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	0534	1.785	0.0100	1.495	0.2148	0.0428	12	1.35	High	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	0556	1.960	0.0400	1.495	0.2148	0.0428	12	2.16	High	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (2%)	0553	1.993	0.0450	1.495	0.2148	0.0428	12	2.32	High	0
321.03	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C w/dual acid (2%)	0526	1.256	0.0188				2			0
321.03	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C w/dual acid (2%)	0105	1.420	0.0010				2			0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0472	1.335	0.0100	1.465	0.0763	0.0262	19	-1.71	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0444	1.355	0.0500	1.465	0.0763	0.0262	19	-1.44	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0552	1.365	0.0500	1.465	0.0763	0.0262	19	-1.31	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0324	1.385	0.0300	1.465	0.0763	0.0262	19	-1.05	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0433	1.402	0.0010	1.465	0.0763	0.0262	19	-0.83	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0390	1.435	0.0300	1.465	0.0763	0.0262	19	-0.39	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0049	1.438	0.0480	1.465	0.0763	0.0262	19	-0.36	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0482	1.465	0.0300	1.465	0.0763	0.0262	19	0.00	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0354	1.480	0.0200	1.465	0.0763	0.0262	19	0.19	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0360	1.482	0.0050	1.465	0.0763	0.0262	19	0.22	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0255	1.486	0.0130	1.465	0.0763	0.0262	19	0.27	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0450	1.490	0.0600	1.465	0.0763	0.0262	19	0.33	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0234	1.500	0.0000	1.465	0.0763	0.0262	19	0.46	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0377	1.510	0.0100	1.465	0.0763	0.0262	19	0.59	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				
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0291	1.525	0.0100	1.465	0.0763	0.0262	19	0.78	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0402	1.525	0.0100	1.465	0.0763	0.0262	19	0.78	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0035	1.530	0.0400	1.465	0.0763	0.0262	19	0.85	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0095	1.535	0.0700	1.465	0.0763	0.0262	19	0.92	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0483	1.715	0.0100	1.465	0.0763	0.0262	19	3.27	High	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (2%)	0102	1.348	0.1773	1.465	0.0763	0.0262	19	-1.53	OK	1
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (2%)	0300	1.387	0.0040	1.604	0.3318	0.0080	3	-0.66		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (2%)	0220	1.440	0.0200	1.604	0.3318	0.0080	3	-0.50		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (2%)	0521	1.986	0.0000	1.604	0.3318	0.0080	3	1.15		0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0486	1.000	0.0000	1.404	0.1193	0.0368	13	-3.39	Low	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0561	1.230	0.1000	1.404	0.1193	0.0368	13	-1.46	Low	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0106	1.306	0.0220	1.404	0.1193	0.0368	13	-0.82	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0055	1.330	0.0200	1.404	0.1193	0.0368	13	-0.62	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0037	1.415	0.0340	1.404	0.1193	0.0368	13	0.09	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0177	1.419	0.0508	1.404	0.1193	0.0368	13	0.12	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0034	1.421	0.0850	1.404	0.1193	0.0368	13	0.13	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0233	1.431	0.0520	1.404	0.1193	0.0368	13	0.22	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0117	1.445	0.0142	1.404	0.1193	0.0368	13	0.34	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0527	1.450	0.0502	1.404	0.1193	0.0368	13	0.38	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0546	1.501	0.0004	1.404	0.1193	0.0368	13	0.81	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0136	1.505	0.0100	1.404	0.1193	0.0368	13	0.84	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0421	1.580	0.0400	1.404	0.1193	0.0368	13	1.47	High	0
321.33	Acid Soluble Zn, ICP, 2017.02 (2%)	0515	2.322	1.124	1.404	0.1193	0.0368	13	7.69	High	1
321.99	Acid Soluble Zn, Other (2%)	0481	1.215	0.0100	1.432	0.1210	0.0453	11	-1.79	Low	0
321.99	Acid Soluble Zn, Other (2%)	0558	1.310	0.0600	1.432	0.1210	0.0453	11	-1.01	OK	0
321.99	Acid Soluble Zn, Other (2%)	0523	1.352	0.0720	1.432	0.1210	0.0453	11	-0.66	OK	0
321.99	Acid Soluble Zn, Other (2%)	0027	1.368	0.0880	1.432	0.1210	0.0453	11	-0.53	OK	0
321.99	Acid Soluble Zn, Other (2%)	0389	1.395	0.0300	1.432	0.1210	0.0453	11	-0.30	OK	0
321.99	Acid Soluble Zn, Other (2%)	0042	1.450	0.0200	1.432	0.1210	0.0453	11	0.15	OK	0
321.99	Acid Soluble Zn, Other (2%)	0405	1.485	0.0700	1.432	0.1210	0.0453	11	0.44	OK	0
321.99	Acid Soluble Zn, Other (2%)	0524	1.499	0.0127	1.432	0.1210	0.0453	11	0.55	OK	0
321.99	Acid Soluble Zn, Other (2%)	0368	1.503	0.0654	1.432	0.1210	0.0453	11	0.59	OK	0
321.99	Acid Soluble Zn, Other (2%)	0559	1.525	0.0500	1.432	0.1210	0.0453	11	0.77	OK	0
321.99	Acid Soluble Zn, Other (2%)	0519	1.940	0.0200	1.432	0.1210	0.0453	11	4.20	High	0
321.99	Acid Soluble Zn, Other (2%)	0520	15.71	0.1800	1.432	0.1210	0.0453	11	118.04	High	2
325.00	Water Soluble Zn, AA (%)	0027	0.7955	0.1130				2			0
325.00	Water Soluble Zn, AA (%)	0532	2.015	0.0900				2			0
325.30	Water Soluble Zn, ICP (%)	0444	0.2050	0.0100				2			0
325.30	Water Soluble Zn, ICP (%)	0555	1.820	0.0200				2			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.