

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

# Methods: 146

Sample # 160711

Statistical Summary

# Labs Reporting: 86

12-12-12 Micros

Issue Date : 08/31/2016

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	9	9	12.07	0.3445	12.05		0.3518	0.1466	2.92%		0.1322	2.75%
001.99	Ammoniacal Nitrogen, Other (%)	14	13	11.99	0.3020	12.01		0.3182	0.1103	2.65%		0.0493	2.75%
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	2	2	11.92	0.2475								
009.99	Ammoniacal Plus Nitrate Nitrogen, Other (%)	1		12.06									
010.11	Total Nitrogen, Modified Comprehensive (12%)	5	5	12.29	0.2193	12.29	0.6141	0.2193	0.1226	1.78%	2.50%	0.0581	2.74%
010.12	Total Nitrogen, Salicylic (12%)	1		12.35									
010.60	Total Nitrogen, Combustion (12%)	61	60	12.42	0.2184	12.43	0.6141	0.1407	0.0227	1.13%	2.47%	0.1149	2.74%
010.99	Total Nitrogen, Other (12%)	8	7	12.31	0.1997	12.33	0.6141	0.1656	0.0783	1.34%	2.49%	0.0443	2.74%
020.10	Total Phosphorus as P2O5, Gravimetric Quinolinium ... (%)	5	5	12.61	0.2441	12.61		0.2441	0.1365	1.94%		0.1600	2.73%
020.20	Total Phosphorus as P2O5, Spectrophotometric Molyb... (%)	19	19	12.25	0.5597	12.37		0.3497	0.1003	2.83%		0.1512	2.74%
020.40	Total Phosphorus as P2O5, Automated (%)	5	5	12.31	0.3139	12.31		0.3139	0.1755	2.55%		0.2900	2.74%
020.50	Total Phosphorus as P2O5, ICP (%)	20	19	12.45	0.6438	12.42		0.6591	0.1890	5.31%		0.1844	2.74%
020.99	Total Phosphorus as P2O5, Other (%)	2	2	12.45	0.0389								
030.40	Citrate Insoluble Phosphorus as P2O5, Automated, t... (%)	1		0.0900									
040.40	Indirect Available Phosphorus as P2O5, Automated (12%)	1		12.55									
040.99	Indirect Available Phosphorus as P2O5, Other (12%)	1		12.15									
041.10	Direct Available Phosphorus as P2O5, Gravimetric Q... (12%)	7	7	12.50	0.0892	12.49	0.6920	0.0887	0.0419	0.71%	2.77%	0.0454	2.74%
041.11	Direct Available Phosphorus as P2O5, Gravimetric Q... (12%)	4	4	12.55	0.1169	12.55	0.6920	0.1169	0.0731	0.93%	2.76%	0.0700	2.73%
041.20	Direct Available Phosphorus as P2O5, Spectrophotom... (12%)	2	2	12.16	0.4381								
041.21	Direct Available Phosphorus as P2O5, Spectrophotom... (12%)	1		12.51									
041.40	Direct Available Phosphorus as P2O5, Automated (12%)	3	3	12.49	0.1953	12.49	0.6920	0.1953	0.1410	1.56%	2.77%	0.2867	2.74%
041.50	Direct Available Phosphorus as P2O5, ICP (12%)	7	6	12.28	0.9191	12.28	0.6920	1.042	0.5319	8.49%	2.82%	0.3450	2.74%
041.51	Direct Available Phosphorus as P2O5, ICP, Citrate-... (12%)	8	7	12.26	0.3337	12.25	0.6920	0.3657	0.1728	2.99%	2.82%	0.1026	2.74%
041.60	Direct Available Phosphorus as P2O5, Citrate-EDTA ... (12%)	11	11	12.33	0.2870	12.35	0.6920	0.2865	0.1080	2.32%	2.80%	0.0540	2.74%
041.99	Direct Available Phosphorus as P2O5, Other (12%)	3	3	12.34	0.2639	12.34	0.6920	0.2639	0.1905	2.14%	2.80%	0.2200	2.74%
042.99	Water Soluble Orthophosphate as P2O5, Other (%)	1		10.33									
048.20	Water Soluble Phosphorus as P2O5, Spectrophotometr... (%)	4	4	10.53	0.5910	10.53		0.5910	0.3694	5.61%		0.0550	2.81%
048.40	Water Soluble Phosphorus as P2O5, Automated (%)	1		10.78									
048.50	Water Soluble Phosphorus as P2O5, ICP (%)	1		11.07									
050.00	Soluble Potassium as K2O, STPB Oxalate (12%)	9	8	12.40	0.3022	12.40	0.8004	0.3427	0.1515	2.76%	3.23%	0.0613	2.74%
050.30	Soluble Potassium as K2O, AA (Oxalate) (12%)	8	7	12.19	0.3810	12.19	0.8004	0.4320	0.2041	3.54%	3.28%	0.1157	2.75%

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
050.31	Soluble Potassium as K2O, AA (Citrate) (12%)	2	2	12.29	0.3677								
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	11	11	12.24	0.4622	12.26	0.8004	0.4714	0.1777	3.84%	3.26%	0.1158	2.74%
050.51	Soluble Potassium as K2O, ICP (Citrate) (12%)	8	7	12.21	0.2512	12.21	0.8004	0.2849	0.1346	2.33%	3.28%	0.0529	2.74%
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (12%)	9	8	12.43	0.2328	12.43	0.8004	0.2640	0.1167	2.12%	3.22%	0.1236	2.74%
050.60	Soluble Potassium as K2O, Flame Photometric (Oxala... (12%)	7	6	12.18	0.3513	12.18	0.8004	0.3983	0.2033	3.27%	3.28%	0.1151	2.75%
050.61	Soluble Potassium as K2O, Flame Photometric (Citra... (12%)	4	4	12.11	0.3951	12.11	0.8004	0.3951	0.2469	3.26%	3.30%	0.3400	2.75%
050.62	Soluble Potassium as K2O, Flame Photometric (Citra... (12%)	4	4	12.55	0.2202	12.55	0.8004	0.2202	0.1376	1.75%	3.19%	0.1200	2.73%
050.99	Soluble Potassium as K2O, Other (12%)	25	25	12.13	0.5885	12.16	0.8004	0.4277	0.1069	3.52%	3.29%	0.2010	2.75%
060.00	Water (Free), Vacuum Oven (%)	2	2	0.9550	0.1273								
060.30	Water (Free), AFPC No. 2B (105°C oven for 2 hours,... (%)	2	2	2.145	0.1414								
060.99	Water (Free), Other (%)	3	3	1.360	0.8129	1.360		0.8129	0.5867	59.76%		0.0465	3.82%
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (%)	1		0.3425									
101.03	Acid Soluble Calcium, AA, 965.09, test portion 200... (%)	1		0.3520									
101.30	Acid Soluble Calcium, ICP, test portion inorganic ... (%)	8	7	0.3284	0.0150	0.3280		0.0161	0.0076	4.90%		0.0247	4.73%
101.32	Acid Soluble Calcium, ICP, test portion 2006.03A-C (%)	3	3	0.3461	0.0108	0.3461		0.0108	0.0078	3.11%		0.0029	4.69%
101.33	Acid Soluble Calcium, ICP, test portion 2006.03A-C... (%)	2	2	0.3326	0.0030								
101.99	Acid Soluble Calcium, Other (%)	1		0.3150									
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (%)	3	3	0.3238	0.0192	0.3238		0.0192	0.0139	5.93%		0.0063	4.74%
121.03	Acid Soluble Magnesium, AA, 965.09, test portion 2... (%)	1		0.3185									
121.30	Acid Soluble Magnesium, ICP, test portion inorgani... (%)	9	9	0.3235	0.0362	0.3166		0.0219	0.0091	6.92%		0.0217	4.76%
121.32	Acid Soluble Magnesium, ICP, test portion 2006.03A... (%)	3	3	0.3215	0.0086	0.3215		0.0086	0.0062	2.69%		0.0030	4.74%
121.33	Acid Soluble Magnesium, ICP, test portion 2006.03A... (%)	2	2	0.3421	0.0168								
121.99	Acid Soluble Magnesium, Other (%)	3	3	0.3274	0.0200	0.3274		0.0200	0.0144	6.10%		0.0022	4.73%
143.00	Elemental Sulfur, Gravimetric Sulfur - carbon disu... (%)	1		13.32									
143.99	Elemental Sulfur, Other (%)	3	3	12.54	0.9683	12.54		0.9683	0.6988	7.73%		0.3500	2.73%
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulfur - ... (%)	4	4	12.76	0.4514	12.76		0.4514	0.2821	3.54%		0.2490	2.73%
145.99	Sulfate Sulfur, HCl soluble, Other (%)	3	3	10.65	1.546	10.65		1.546	1.116	14.52%		0.0933	2.80%
148.00	Total Sulfur, Combustion (9%)	5	5	12.80	0.6878	12.80	0.8210	0.6878	0.3845	5.37%	3.21%	0.1920	2.73%
148.01	Total Sulfur, Gravimetric - sulfate and elemental... (9%)	11	10	12.01	1.243	12.32	0.8210	0.6325	0.2500	5.13%	3.33%	0.0867	2.74%
148.07	Total Sulfur, ICP, test portion as in 2006.03 modi... (9%)	11	10	12.35	1.073	12.54	0.8210	0.6760	0.2672	5.39%	3.27%	0.1398	2.73%
148.99	Total Sulfur, Other (9%)	12	12	12.08	0.9638	12.08	0.8210	1.093	0.3944	9.04%	3.40%	0.1919	2.75%
149.04	Sulfur - HNO3 soluble, ICP (%)	4	4	12.77	0.6628	12.77		0.6628	0.4143	5.19%		0.0481	2.73%
151.30	Acid Soluble Arsenic , ICP (ppm)	6	6	235.1	35.07	235.1		39.77	20.29	16.92%		3.801	7.03%
151.32	Acid Soluble Arsenic , ICP, 2006.03 (ppm)	2	2	249.1	4.408								
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified w/9:3... (ppm)	4	4	239.9	12.54	239.9		12.54	7.838	5.23%		6.652	7.01%
151.34	Acid Soluble Arsenic , ICP, EPA 3050B/6010C (ppm)	2	2	230.6	21.05								
151.99	Acid Soluble Arsenic , Other (ppm)	2	2	220.1	56.48								
165.00	Acid Soluble Boron , Spectrophotometric (0.1%)	5	5	0.1037	0.0069	0.1037	0.0190	0.0069	0.0039	6.65%	9.15%	0.0029	5.63%
165.30	Acid Soluble Boron , ICP, test portion in 982.01 (0.1%)	17	15	0.1978	0.2607	0.1085	0.0190	0.0083	0.0027	7.62%	8.74%	0.0618	5.59%
165.70	Acid Soluble Boron , Titrimetric (0.1%)	1		0.0900									
165.99	Acid Soluble Boron , Other (0.1%)	20	19	0.1059	0.0084	0.1058	0.0190	0.0094	0.0027	8.84%	8.96%	0.0026	5.61%
171.10	Water Soluble Boron , Spectrophotometric (%)	1		0.1225									

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
171.99	Water Soluble Boron , Other (%)	3	3	0.1008	0.0078	0.1008		0.0078	0.0056	7.69%		0.0083	5.65%
181.30	Acid Soluble Cadmium , ICP (ppm)	12	12	229.2	31.08	229.8		33.87	12.22	14.74%		6.924	7.06%
181.32	Acid Soluble Cadmium , ICP, 2006.03 (ppm)	1		220.5									
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified w/9:3... (ppm)	3	3	241.9	22.84	241.9		22.84	16.48	9.44%		11.51	7.00%
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	2	2	236.1	5.863								
181.99	Acid Soluble Cadmium , Other (ppm)	5	5	235.5	40.27	235.5		40.27	22.51	17.10%		7.840	7.03%
190.00	Water Soluble Chlorine, Titrimetric (%)	1		9.600									
191.30	Acid Soluble Chromium , ICP (ppm)	10	10	48.94	4.506	49.20		4.162	1.645	8.46%		1.133	8.90%
191.32	Acid Soluble Chromium , ICP, 2006.03 (ppm)	1		48.99									
191.33	Acid Soluble Chromium , ICP, 2006.03 modified w/9:... (ppm)	3	3	55.25	4.181	55.25		4.181	3.018	7.57%		2.953	8.75%
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C (ppm)	2	2	49.35	2.543								
191.99	Acid Soluble Chromium , Other (ppm)	3	3	68.17	19.13	68.17		19.13	13.80	28.06%		3.800	8.47%
202.30	Acid Soluble Cobalt , ICP (ppm)	10	9	2.155	0.7875	2.341		0.3459	0.1441	14.78%		0.1055	14.07%
202.32	Acid Soluble Cobalt , ICP, 2006.03 (ppm)	2	2	2.809	0.3302								
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w/9:3 ... (ppm)	2	2	1.977	1.680								
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	1		0.7420									
202.99	Acid Soluble Cobalt , Other (ppm)	2	2	2.475	0.4596								
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.1%)	7	7	0.1820	0.0118	0.1809	0.0227	0.0105	0.0050	5.81%	6.28%	0.0105	5.17%
221.03	Acid Soluble Copper , AA, 965.09, test portion 200... (0.1%)	4	3	0.1743	0.0192	0.1743	0.0227	0.0192	0.0139	11.03%	6.53%	0.0030	5.20%
221.30	Acid Soluble Copper , ICP, test portion inorganic ... (0.1%)	25	24	0.1784	0.0131	0.1781	0.0227	0.0143	0.0037	8.04%	6.38%	0.0053	5.19%
221.32	Acid Soluble Copper , ICP, test portion 2006.03A-C... (0.1%)	3	3	0.1826	0.0177	0.1826	0.0227	0.0177	0.0128	9.71%	6.23%	0.0014	5.17%
221.33	Acid Soluble Copper , ICP, test portion 2006.03A-C... (0.1%)	8	7	0.1794	0.0151	0.1794	0.0227	0.0171	0.0081	9.52%	6.34%	0.0049	5.18%
221.99	Acid Soluble Copper , Other (0.1%)	10	10	0.1651	0.0221	0.1665	0.0227	0.0217	0.0086	13.05%	6.83%	0.0073	5.24%
241.00	Acid Soluble Iron, AA, inorganic 965.09 (0.5%)	7	7	0.8825	0.0983	0.8910	0.0960	0.0910	0.0430	10.21%	5.39%	0.0256	4.07%
241.03	Acid Soluble Iron, AA, 965.09, test portion 2006.0... (0.5%)	1		0.9525									
241.30	Acid Soluble Iron, ICP, test portion inorganic 965... (0.5%)	24	23	0.9246	0.0604	0.9167	0.0960	0.0481	0.0125	5.25%	5.23%	0.0200	4.05%
241.32	Acid Soluble Iron, ICP, test portion 2006.03A-C (0.5%)	3	3	0.9015	0.0401	0.9015	0.0960	0.0401	0.0289	4.45%	5.32%	0.0025	4.06%
241.33	Acid Soluble Iron, ICP, test portion 2006.03A-C, w... (0.5%)	10	9	0.8945	0.0466	0.8938	0.0960	0.0513	0.0214	5.74%	5.37%	0.0160	4.07%
241.99	Acid Soluble Iron, Other (0.5%)	9	9	0.8473	0.1946	0.8625	0.0960	0.1843	0.0768	21.37%	5.56%	0.0180	4.09%
251.30	Acid Soluble Lead , ICP (ppm)	11	10	1,036	113.4	1,041		118.1	46.68	11.35%		13.16	5.62%
251.32	Acid Soluble Lead , ICP, 2006.03 (ppm)	1		1,020									
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9:3 HN... (ppm)	3	3	1,124	58.18	1,124		58.18	41.99	5.18%		81.50	5.56%
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	2	2	1,058	46.85								
251.99	Acid Soluble Lead , Other (ppm)	2	2	1,120	35.71								
261.00	Acid Soluble Manganese , AA, Mn2+ only (0.4%)	2	2	0.4163	0.0159								
261.11	Acid Soluble Manganese , AA, total Mn (0.4%)	1		0.3550									
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (0.4%)	4	4	0.4261	0.0189	0.4261	0.0468	0.0189	0.0118	4.44%	5.49%	0.0055	4.55%
261.15	Acid Soluble Manganese , AA, 965.09, test portion ... (0.4%)	1		0.4235									
261.30	Acid Soluble Manganese , ICP, test portion 972.02a... (0.4%)	14	13	0.4285	0.0327	0.4271	0.0468	0.0339	0.0118	7.94%	5.48%	0.0118	4.55%
261.31	Acid Soluble Manganese , ICP, test portion 972.02b... (0.4%)	5	5	0.4258	0.0158	0.4258	0.0468	0.0158	0.0088	3.70%	5.50%	0.0060	4.55%
261.32	Acid Soluble Manganese , ICP, test portion inorgan... (0.4%)	5	5	0.4136	0.0248	0.4136	0.0468	0.0248	0.0138	5.99%	5.66%	0.0096	4.57%
261.34	Acid Soluble Manganese , ICP, test portion 2006.03... (0.4%)	3	3	0.4174	0.0293	0.4174	0.0468	0.0293	0.0211	7.02%	5.61%	0.0045	4.56%

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
261.35	Acid Soluble Manganese , ICP, test portion 2006.03... (0.4%)	10	9	0.4068	0.0169	0.4075	0.0468	0.0175	0.0073	4.30%	5.74%	0.0068	4.58%
261.99	Acid Soluble Manganese , Other (0.4%)	9	9	0.4218	0.0235	0.4190	0.0468	0.0195	0.0081	4.64%	5.59%	0.0057	4.56%
271.30	Water Soluble Manganese , ICP, Ext. 972.03 (%)	1		0.2050									
281.00	Acid Soluble Mercury , AA (ppm)	2	2	19.76	0.3712								
281.30	Acid Soluble Mercury , ICP (ppm)	1		16.08									
281.99	Acid Soluble Mercury , Other (ppm)	1		27.90									
289.30	Acid Soluble Molybdenum , ICP (250ppm)	10	10	9.102	1.778	9.111	3.7642	1.998	0.7897	21.93%	20.66%	0.2081	11.47%
289.32	Acid Soluble Molybdenum , ICP, 2006.03 (250ppm)	1		8.773									
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modified w/... (250ppm)	6	6	8.842	1.144	8.842	3.7642	1.297	0.6618	14.67%	21.29%	0.6709	11.52%
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010C (250ppm)	2	2	8.027	2.211								
289.99	Acid Soluble Molybdenum , Other (250ppm)	3	3	10.63	1.483	10.63	3.7642	1.483	1.070	13.96%	17.71%	0.9767	11.21%
291.30	Acid Soluble Nickel , ICP (ppm)	10	9	35.92	6.091	35.92		6.907	2.878	19.23%		1.835	9.33%
291.32	Acid Soluble Nickel , ICP, 2006.03 (ppm)	1		39.11									
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w/9:3 ... (ppm)	2	2	39.66	2.187								
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	2	2	36.28	2.356								
291.99	Acid Soluble Nickel , Other (ppm)	3	3	37.28	3.093	37.28		3.093	2.232	8.30%		2.433	9.28%
301.30	Acid Soluble Selenium , ICP (ppm)	2	2	4.535	3.840								
301.33	Acid Soluble Selenium , ICP, 2006.03 modified w/9:... (ppm)	1		0.0000									
301.34	Acid Soluble Selenium , ICP, EPA 3050B/6010C (ppm)	1		0.0000									
301.99	Acid Soluble Selenium , Other (ppm)	1		1.800									
311.32	Sodium, ICP, 2006.03 test portion (%)	1		0.2892									
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl test ... (%)	3	3	0.2479	0.0796	0.2479		0.0796	0.0574	32.10%		0.0054	4.93%
311.99	Sodium, Other (%)	3	3	0.3038	0.0210	0.3038		0.0210	0.0152	6.92%		0.0070	4.79%
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (2%)	9	9	1.993	0.0836	1.983	0.2063	0.0675	0.0281	3.40%	5.20%	0.0375	3.61%
321.03	Acid Soluble Zinc , AA, 965.09, test portion 2006.... (2%)	1		2.000									
321.30	Acid Soluble Zinc , ICP, test portion inorganic 96... (2%)	26	25	2.022	0.1169	2.020	0.2063	0.1284	0.0321	6.36%	5.11%	0.0728	3.60%
321.32	Acid Soluble Zinc , ICP, test portion 2006.03A-C (2%)	3	3	2.049	0.0733	2.049	0.2063	0.0732	0.0529	3.58%	5.04%	0.0127	3.59%
321.33	Acid Soluble Zinc , ICP, test portion 2006.03A-C, ... (2%)	9	9	2.029	0.1212	2.026	0.2063	0.1304	0.0543	6.44%	5.09%	0.0471	3.60%
321.99	Acid Soluble Zinc , Other (2%)	8	8	2.002	0.1188	2.001	0.2063	0.1167	0.0516	5.83%	5.15%	0.0585	3.60%
325.30	Water Soluble Zinc , ICP (%)	3	3	1.668	0.4636	1.668		0.4636	0.3346	27.79%		0.0567	3.70%
325.99	Water Soluble Zinc , Other (%)	1		2.025									

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 160711

12-12-12 Micros

Method Precision Report

Issue Date : 08/31/2016

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
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	9	9	12.07	0.3445	0.3347	0.1153	0.3540	2.77%	0.96%	2.93%	3.071
001.99	Ammoniacal Nitrogen, Other (%)	14	13	11.99	0.3020	0.3003	0.0453	0.3037	2.50%	0.38%	2.53%	6.710
010.60	Total Nitrogen, Combustion (12%)	61	57	12.43	0.1320	0.1081	0.1069	0.1521	0.87%	0.86%	1.22%	1.422
010.99	Total Nitrogen, Other (12%)	8	6	12.37	0.1058	0.1020	0.0397	0.1095	0.82%	0.32%	0.88%	2.759
020.20	Total Phosphorus as P2O5, Spectrophotometric MolybdovanadoP (%)	19	16	12.30	0.4846	0.4800	0.0935	0.4890	3.90%	0.76%	3.98%	5.228
020.50	Total Phosphorus as P2O5, ICP (%)	20	19	12.45	0.6438	0.6297	0.1900	0.6577	5.06%	1.53%	5.28%	3.462
041.10	Direct Available Phosphorus as P2O5, Gravimetric Quinolinium (12%)	7	7	12.50	0.0892	0.0834	0.0445	0.0946	0.67%	0.36%	0.76%	2.124
041.50	Direct Available Phosphorus as P2O5, ICP (12%)	7	5	12.00	0.6997	0.6954	0.1096	0.7039	5.79%	0.91%	5.87%	6.423
041.51	Direct Available Phosphorus as P2O5, ICP, Citrate-EDTA Ext. (12%)	8	7	12.26	0.3337	0.3243	0.1108	0.3427	2.65%	0.90%	2.80%	3.092
041.60	Direct Available Phosphorus as P2O5, Citrate-EDTA Ext. (12%)	11	10	12.38	0.2355	0.2340	0.0372	0.2369	1.89%	0.30%	1.91%	6.364
050.00	Soluble Potassium as K2O, STPB Oxalate (12%)	9	8	12.40	0.3022	0.2988	0.0647	0.3057	2.41%	0.52%	2.46%	4.727
050.30	Soluble Potassium as K2O, AA (Oxalate) (12%)	8	7	12.19	0.3810	0.3725	0.1126	0.3892	3.06%	0.92%	3.19%	3.456
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	11	11	12.24	0.4622	0.4567	0.1007	0.4677	3.73%	0.82%	3.82%	4.643
050.51	Soluble Potassium as K2O, ICP (Citrate) (12%)	8	6	12.25	0.2554	0.2544	0.0325	0.2564	2.08%	0.27%	2.09%	7.882
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (12%)	9	7	12.39	0.2298	0.2231	0.0783	0.2364	1.80%	0.63%	1.91%	3.020
050.60	Soluble Potassium as K2O, Flame Photometric (Oxalate) (12%)	7	5	12.07	0.2407	0.2373	0.0572	0.2441	1.97%	0.47%	2.02%	4.266
050.99	Soluble Potassium as K2O, Other (12%)	25	23	12.16	0.3464	0.3228	0.1775	0.3684	2.65%	1.46%	3.03%	2.076
101.30	Acid Soluble Calcium, ICP, test portion inorganic 965.09 (%)	8	6	0.3299	0.0159	0.0127	0.0135	0.0185	3.85%	4.10%	5.62%	1.372
121.30	Acid Soluble Magnesium, ICP, test portion inorganic 965.09 (%)	9	8	0.3125	0.0159	0.0124	0.0141	0.0188	3.96%	4.53%	6.01%	1.329
148.01	Total Sulfur, Gravimetric - sulfate and elemental (9%)	11	8	12.31	0.7088	0.7073	0.0664	0.7104	5.74%	0.54%	5.77%	10.71
148.07	Total Sulfur, ICP, test portion as in 2006.03 modified w/9:3 HNO3:HCl (9%)	11	9	12.65	0.5069	0.5031	0.0879	0.5107	3.98%	0.69%	4.04%	5.809
148.99	Total Sulfur, Other (9%)	12	12	12.08	0.9638	0.9552	0.1819	0.9723	7.90%	1.51%	8.05%	5.346
151.30	Acid Soluble Arsenic , ICP (ppm)	6	5	231.4	37.87	37.83	2.235	37.90	16.35%	0.97%	16.38%	16.95
165.30	Acid Soluble Boron , ICP, test portion in 982.01 (0.1%)	17	13	0.1066	0.0057	0.0053	0.0031	0.0061	4.94%	2.90%	5.73%	1.973
165.99	Acid Soluble Boron , Other (0.1%)	20	17	0.1066	0.0085	0.0084	0.0018	0.0086	7.86%	1.66%	8.04%	4.829
181.30	Acid Soluble Cadmium , ICP (ppm)	12	12	229.2	31.08	30.57	7.936	31.58	13.34%	3.46%	13.78%	3.980
191.30	Acid Soluble Chromium , ICP (ppm)	10	10	48.94	4.506	4.439	1.096	4.572	9.07%	2.24%	9.34%	4.172
202.30	Acid Soluble Cobalt , ICP (ppm)	10	7	2.392	0.2681	0.2628	0.0755	0.2734	10.98%	3.15%	11.43%	3.623
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.1%)	7	7	0.1820	0.0118	0.0095	0.0099	0.0137	5.24%	5.42%	7.54%	1.391
221.30	Acid Soluble Copper , ICP, test portion inorganic 965.09 (0.1%)	25	22	0.1775	0.0123	0.0120	0.0035	0.0125	6.78%	1.97%	7.06%	3.583

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
221.33	Acid Soluble Copper , ICP, test portion 2006.03A-C, w/dual acid (0.1%)	8	7	0.1794	0.0151	0.0147	0.0044	0.0154	8.21%	2.47%	8.57%	3.466
221.99	Acid Soluble Copper , Other (0.1%)	10	10	0.1651	0.0221	0.0215	0.0073	0.0227	13.00%	4.42%	13.73%	3.107
241.00	Acid Soluble Iron, AA, inorganic 965.09 (0.5%)	7	7	0.8825	0.0982	0.0973	0.0191	0.0992	11.03%	2.17%	11.24%	5.189
241.30	Acid Soluble Iron, ICP, test portion inorganic 965.09 (0.5%)	24	21	0.9106	0.0403	0.0394	0.0120	0.0412	4.33%	1.32%	4.53%	3.430
241.33	Acid Soluble Iron, ICP, test portion 2006.03A-C, w/dual acid (0.5%)	10	8	0.8979	0.0486	0.0478	0.0122	0.0493	5.32%	1.36%	5.49%	4.031
241.99	Acid Soluble Iron, Other (0.5%)	9	9	0.8473	0.1946	0.1943	0.0150	0.1949	22.93%	1.77%	23.00%	12.98
251.30	Acid Soluble Lead , ICP (ppm)	11	10	1,036	113.4	113.2	11.53	113.7	10.92%	1.11%	10.98%	9.867
261.30	Acid Soluble Manganese , ICP, test portion 972.02a (0.4%)	14	12	0.4229	0.0271	0.0266	0.0066	0.0275	6.30%	1.56%	6.49%	4.158
261.35	Acid Soluble Manganese , ICP, test portion 2006.03A-C, w/dual acid (0.4%)	10	8	0.4044	0.0163	0.0160	0.0041	0.0165	3.96%	1.01%	4.09%	4.049
261.99	Acid Soluble Manganese , Other (0.4%)	9	8	0.4153	0.0141	0.0136	0.0054	0.0146	3.27%	1.30%	3.52%	2.705
289.30	Acid Soluble Molybdenum , ICP (250ppm)	10	9	9.158	1.876	1.873	0.1608	1.880	20.45%	1.76%	20.53%	11.69
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modified w/9:3 HNO3:HCl (250ppm)	6	6	8.842	1.144	1.062	0.6014	1.220	12.01%	6.80%	13.80%	2.029
291.30	Acid Soluble Nickel , ICP (ppm)	10	8	34.79	5.418	5.355	1.160	5.479	15.39%	3.33%	15.75%	4.725
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (2%)	9	8	1.970	0.0499	0.0434	0.0347	0.0556	2.21%	1.76%	2.82%	1.603
321.30	Acid Soluble Zinc , ICP, test portion inorganic 965.09 (2%)	26	23	2.012	0.1124	0.1071	0.0483	0.1175	5.32%	2.40%	5.84%	2.433
321.33	Acid Soluble Zinc , ICP, test portion 2006.03A-C, w/dual acid (2%)	9	9	2.029	0.1212	0.1183	0.0376	0.1241	5.83%	1.85%	6.12%	3.298
321.99	Acid Soluble Zinc , Other (2%)	8	8	2.002	0.1188	0.1115	0.0580	0.1257	5.57%	2.90%	6.28%	2.166

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

# Methods: 146

Sample # 160711

Lab Values

# Labs Reporting: 86

12-12-12 Micros

Issue Date : 08/31/2016

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0513	11.56	0.1600	12.05	0.3518	0.1322	9	-1.29	2%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0389	11.80	0.3500	12.05	0.3518	0.1322	9	-0.67	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0309	11.88	0.0700	12.05	0.3518	0.1322	9	-0.46	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0231	11.89	0.1500	12.05	0.3518	0.1322	9	-0.44	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0230	12.05	0.1000	12.05	0.3518	0.1322	9	0.00	0%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0405	12.17	0.0600	12.05	0.3518	0.1322	9	0.31	0%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0456	12.20	0.2000	12.05	0.3518	0.1322	9	0.39	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0498	12.35	0.1000	12.05	0.3518	0.1322	9	0.78	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0444	12.73	0.0000	12.05	0.3518	0.1322	9	1.78	3%	0
001.99	Ammoniacal Nitrogen, Other (%)	0511	11.39	0.0000	12.01	0.3182	0.0493	13	-1.93	3%	0
001.99	Ammoniacal Nitrogen, Other (%)	0368	11.65	0.0300	12.01	0.3182	0.0493	13	-1.13	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0420	11.72	0.1000	12.01	0.3182	0.0493	13	-0.90	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0513	11.87	0.0600	12.01	0.3182	0.0493	13	-0.43	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0493	11.90	0.1000	12.01	0.3182	0.0493	13	-0.33	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0027	11.93	0.0750	12.01	0.3182	0.0493	13	-0.24	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0510	12.00	0.0053	12.01	0.3182	0.0493	13	-0.01	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0520	12.08	0.0000	12.01	0.3182	0.0493	13	0.23	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0220	12.11	0.0700	12.01	0.3182	0.0493	13	0.31	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0522	12.16	0.0100	12.01	0.3182	0.0493	13	0.47	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0508	12.33	0.0900	12.01	0.3182	0.0493	13	1.00	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0487	12.33	0.0000	12.01	0.3182	0.0493	13	1.02	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0096	12.48	0.1000	12.01	0.3182	0.0493	13	1.49	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0506	12.30	0.4000	12.01	0.3182	0.0493	13	0.93	1%	1
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0090	11.75	0.0700				2			0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0169	12.10	0.0300				2			0
009.99	Ammoniacal Plus Nitrate Nitrogen, Other (%)	0518	12.06	0.0500				1			0
010.11	Total Nitrogen, Modified Comprehensive (12%)	0309	12.05	0.1300	12.29	0.2193	0.0581	5	-1.11	1%	0
010.11	Total Nitrogen, Modified Comprehensive (12%)	0500	12.08	0.0000	12.29	0.2193	0.0581	5	-0.95	1%	0
010.11	Total Nitrogen, Modified Comprehensive (12%)	0105	12.35	0.1100	12.29	0.2193	0.0581	5	0.26	0%	0
010.11	Total Nitrogen, Modified Comprehensive (12%)	0220	12.42	0.0500	12.29	0.2193	0.0581	5	0.58	1%	0
010.11	Total Nitrogen, Modified Comprehensive (12%)	0510	12.55	0.0005	12.29	0.2193	0.0581	5	1.21	1%	0
010.12	Total Nitrogen, Salicylic (12%)	0498	12.35	0.1000				1			0
010.60	Total Nitrogen, Combustion (12%)	0521	11.43*	0.0283	12.43	0.1407	0.1149	60	-7.13	4%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010.60	Total Nitrogen, Combustion (12%)	0472	11.99	0.0100	12.43	0.1407	0.1149	60	-3.16	2%	0
010.60	Total Nitrogen, Combustion (12%)	0117	12.00	0.6000	12.43	0.1407	0.1149	60	-3.05	2%	0
010.60	Total Nitrogen, Combustion (12%)	0356	12.17	0.0300	12.43	0.1407	0.1149	60	-1.88	1%	0
010.60	Total Nitrogen, Combustion (12%)	0041	12.20	0.0200	12.43	0.1407	0.1149	60	-1.63	1%	0
010.60	Total Nitrogen, Combustion (12%)	0292	12.23	0.0100	12.43	0.1407	0.1149	60	-1.45	1%	0
010.60	Total Nitrogen, Combustion (12%)	0423	12.23	0.0300	12.43	0.1407	0.1149	60	-1.45	1%	0
010.60	Total Nitrogen, Combustion (12%)	0354	12.24	0.0050	12.43	0.1407	0.1149	60	-1.36	1%	0
010.60	Total Nitrogen, Combustion (12%)	0368	12.25	0.2280	12.43	0.1407	0.1149	60	-1.28	1%	0
010.60	Total Nitrogen, Combustion (12%)	0027	12.30	0.0000	12.43	0.1407	0.1149	60	-0.92	1%	0
010.60	Total Nitrogen, Combustion (12%)	0136	12.30	0.1600	12.43	0.1407	0.1149	60	-0.92	1%	0
010.60	Total Nitrogen, Combustion (12%)	0405	12.31	0.0900	12.43	0.1407	0.1149	60	-0.89	1%	0
010.60	Total Nitrogen, Combustion (12%)	0291	12.32	0.0100	12.43	0.1407	0.1149	60	-0.82	0%	0
010.60	Total Nitrogen, Combustion (12%)	0042	12.33	0.1100	12.43	0.1407	0.1149	60	-0.74	0%	0
010.60	Total Nitrogen, Combustion (12%)	0451	12.35	0.0500	12.43	0.1407	0.1149	60	-0.60	0%	0
010.60	Total Nitrogen, Combustion (12%)	0389	12.35	0.1400	12.43	0.1407	0.1149	60	-0.57	0%	0
010.60	Total Nitrogen, Combustion (12%)	0406	12.36	0.1300	12.43	0.1407	0.1149	60	-0.53	0%	0
010.60	Total Nitrogen, Combustion (12%)	0421	12.36	0.2900	12.43	0.1407	0.1149	60	-0.53	0%	0
010.60	Total Nitrogen, Combustion (12%)	0028	12.37	0.0500	12.43	0.1407	0.1149	60	-0.46	0%	0
010.60	Total Nitrogen, Combustion (12%)	0420	12.39	0.0400	12.43	0.1407	0.1149	60	-0.28	0%	0
010.60	Total Nitrogen, Combustion (12%)	0486	12.39	0.3600	12.43	0.1407	0.1149	60	-0.28	0%	0
010.60	Total Nitrogen, Combustion (12%)	0452	12.40	0.0300	12.43	0.1407	0.1149	60	-0.25	0%	0
010.60	Total Nitrogen, Combustion (12%)	0523	12.40	0.0000	12.43	0.1407	0.1149	60	-0.21	0%	0
010.60	Total Nitrogen, Combustion (12%)	0086	12.40	0.0520	12.43	0.1407	0.1149	60	-0.20	0%	0
010.60	Total Nitrogen, Combustion (12%)	0360	12.41	0.1100	12.43	0.1407	0.1149	60	-0.18	0%	0
010.60	Total Nitrogen, Combustion (12%)	0377	12.41	0.0300	12.43	0.1407	0.1149	60	-0.18	0%	0
010.60	Total Nitrogen, Combustion (12%)	0390	12.41	0.1300	12.43	0.1407	0.1149	60	-0.18	0%	0
010.60	Total Nitrogen, Combustion (12%)	0234	12.42	0.0400	12.43	0.1407	0.1149	60	-0.07	0%	0
010.60	Total Nitrogen, Combustion (12%)	0105	12.43	0.0090	12.43	0.1407	0.1149	60	0.01	0%	0
010.60	Total Nitrogen, Combustion (12%)	0457	12.43	0.0800	12.43	0.1407	0.1149	60	0.02	0%	0
010.60	Total Nitrogen, Combustion (12%)	0025	12.44	0.0100	12.43	0.1407	0.1149	60	0.04	0%	0
010.60	Total Nitrogen, Combustion (12%)	0157	12.45	0.1000	12.43	0.1407	0.1149	60	0.14	0%	0
010.60	Total Nitrogen, Combustion (12%)	0324	12.45	0.1000	12.43	0.1407	0.1149	60	0.14	0%	0
010.60	Total Nitrogen, Combustion (12%)	0482	12.45	0.1000	12.43	0.1407	0.1149	60	0.14	0%	0
010.60	Total Nitrogen, Combustion (12%)	0231	12.46	0.0700	12.43	0.1407	0.1149	60	0.18	0%	0
010.60	Total Nitrogen, Combustion (12%)	0043	12.47	0.1300	12.43	0.1407	0.1149	60	0.25	0%	0
010.60	Total Nitrogen, Combustion (12%)	0494	12.47	0.0500	12.43	0.1407	0.1149	60	0.25	0%	0
010.60	Total Nitrogen, Combustion (12%)	0049	12.48	0.0100	12.43	0.1407	0.1149	60	0.32	0%	0
010.60	Total Nitrogen, Combustion (12%)	0511	12.48	0.0000	12.43	0.1407	0.1149	60	0.36	0%	0
010.60	Total Nitrogen, Combustion (12%)	0230	12.50	0.2000	12.43	0.1407	0.1149	60	0.50	0%	0
010.60	Total Nitrogen, Combustion (12%)	0325	12.50	0.2000	12.43	0.1407	0.1149	60	0.50	0%	0
010.60	Total Nitrogen, Combustion (12%)	0402	12.51	0.0900	12.43	0.1407	0.1149	60	0.54	0%	0
010.60	Total Nitrogen, Combustion (12%)	0035	12.52	0.0300	12.43	0.1407	0.1149	60	0.61	0%	0
010.60	Total Nitrogen, Combustion (12%)	0070	12.52	0.0600	12.43	0.1407	0.1149	60	0.64	0%	0



Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
010.60	Total Nitrogen, Combustion (12%)	0096	12.54	0.0600	12.43	0.1407	0.1149	60	0.78	0%	0
010.60	Total Nitrogen, Combustion (12%)	0422	12.54	0.2600	12.43	0.1407	0.1149	60	0.78	0%	0
010.60	Total Nitrogen, Combustion (12%)	0007	12.55	0.3000	12.43	0.1407	0.1149	60	0.85	0%	0
010.60	Total Nitrogen, Combustion (12%)	0040	12.55	0.3000	12.43	0.1407	0.1149	60	0.85	0%	0
010.60	Total Nitrogen, Combustion (12%)	0073	12.56	0.0100	12.43	0.1407	0.1149	60	0.89	1%	0
010.60	Total Nitrogen, Combustion (12%)	0177	12.56	0.1700	12.43	0.1407	0.1149	60	0.89	1%	0
010.60	Total Nitrogen, Combustion (12%)	0131	12.57	0.4200	12.43	0.1407	0.1149	60	1.00	1%	0
010.60	Total Nitrogen, Combustion (12%)	0055	12.58	0.1100	12.43	0.1407	0.1149	60	1.03	1%	0
010.60	Total Nitrogen, Combustion (12%)	0102	12.58	0.2400	12.43	0.1407	0.1149	60	1.07	1%	0
010.60	Total Nitrogen, Combustion (12%)	0095	12.59	0.2400	12.43	0.1407	0.1149	60	1.14	1%	0
010.60	Total Nitrogen, Combustion (12%)	0029	12.60	0.0700	12.43	0.1407	0.1149	60	1.17	1%	0
010.60	Total Nitrogen, Combustion (12%)	0443	12.60	0.0000	12.43	0.1407	0.1149	60	1.21	1%	0
010.60	Total Nitrogen, Combustion (12%)	0516	12.60	0.0000	12.43	0.1407	0.1149	60	1.21	1%	0
010.60	Total Nitrogen, Combustion (12%)	0307	12.62	0.4100	12.43	0.1407	0.1149	60	1.32	1%	0
010.60	Total Nitrogen, Combustion (12%)	0483	12.67	0.0190	12.43	0.1407	0.1149	60	1.71	1%	0
010.60	Total Nitrogen, Combustion (12%)	0260	13.24	0.2600	12.43	0.1407	0.1149	60	5.76	3%	0
010.60	Total Nitrogen, Combustion (12%)	0023	6.233*	12.47	12.43	0.1407	0.1149	60			4
010.99	Total Nitrogen, Other (12%)	0513	11.91	0.0600	12.33	0.1656	0.0443	7	-2.30	2%	0
010.99	Total Nitrogen, Other (12%)	0420	12.23	0.0700	12.33	0.1656	0.0443	7	-0.58	0%	0
010.99	Total Nitrogen, Other (12%)	0487	12.33	0.0000	12.33	0.1656	0.0443	7	-0.01	0%	0
010.99	Total Nitrogen, Other (12%)	0524	12.36	0.0600	12.33	0.1656	0.0443	7	0.16	0%	0
010.99	Total Nitrogen, Other (12%)	0520	12.37	0.0200	12.33	0.1656	0.0443	7	0.21	0%	0
010.99	Total Nitrogen, Other (12%)	0508	12.40	0.0000	12.33	0.1656	0.0443	7	0.38	0%	0
010.99	Total Nitrogen, Other (12%)	0493	12.55	0.1000	12.33	0.1656	0.0443	7	1.19	1%	0
010.99	Total Nitrogen, Other (12%)	0506	12.30	0.4000	12.33	0.1656	0.0443	7	-0.17	0%	1
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0493	12.45	0.1000	12.61	0.2441	0.1600	5	-0.65	1%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0090	12.50	0.0700	12.61	0.2441	0.1600	5	-0.46	0%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0105	12.51	0.0500	12.61	0.2441	0.1600	5	-0.42	0%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0157	12.55	0.3000	12.61	0.2441	0.1600	5	-0.24	0%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0444	13.04	0.2800	12.61	0.2441	0.1600	5	1.77	2%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0457	10.88	0.3200	12.37	0.3497	0.1512	19	-4.27	6%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0498	11.15	0.1000	12.37	0.3497	0.1512	19	-3.50	5%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0169	11.23	0.0200	12.37	0.3497	0.1512	19	-3.27	5%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0506	12.15	0.3000	12.37	0.3497	0.1512	19	-0.64	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0420	12.20	0.2700	12.37	0.3497	0.1512	19	-0.51	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0234	12.22	0.0400	12.37	0.3497	0.1512	19	-0.44	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0356	12.22	0.0400	12.37	0.3497	0.1512	19	-0.44	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0500	12.27	0.0200	12.37	0.3497	0.1512	19	-0.29	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0405	12.36	0.0000	12.37	0.3497	0.1512	19	-0.04	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0027	12.41	0.2820	12.37	0.3497	0.1512	19	0.10	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0231	12.47	0.0200	12.37	0.3497	0.1512	19	0.28	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0510	12.54	0.0573	12.37	0.3497	0.1512	19	0.47	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0309	12.56	0.1300	12.37	0.3497	0.1512	19	0.52	1%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0406	12.56	0.5900	12.37	0.3497	0.1512	19	0.52	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0428	12.58	0.6026	12.37	0.3497	0.1512	19	0.59	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0292	12.66	0.0100	12.37	0.3497	0.1512	19	0.81	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0516	12.71	0.0200	12.37	0.3497	0.1512	19	0.97	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0324	12.80	0.0000	12.37	0.3497	0.1512	19	1.22	2%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0522	12.85	0.0500	12.37	0.3497	0.1512	19	1.35	2%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0035	11.81	0.9800	12.31	0.3139	0.2900	5	-1.60	2%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0042	12.24	0.3300	12.31	0.3139	0.2900	5	-0.24	0%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0105	12.43	0.0100	12.31	0.3139	0.2900	5	0.36	0%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0456	12.45	0.1000	12.31	0.3139	0.2900	5	0.44	1%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0096	12.64	0.0300	12.31	0.3139	0.2900	5	1.03	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0422	11.61	0.5000	12.42	0.6591	0.1844	19	-1.23	3%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0521	11.76	0.0000	12.42	0.6591	0.1844	19	-1.00	3%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0389	11.80	0.0800	12.42	0.6591	0.1844	19	-0.94	2%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0523	11.80	0.0000	12.42	0.6591	0.1844	19	-0.94	2%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0300	11.90	0.0200	12.42	0.6591	0.1844	19	-0.79	2%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0482	12.00	0.4000	12.42	0.6591	0.1844	19	-0.63	2%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0472	12.01	0.0100	12.42	0.6591	0.1844	19	-0.63	2%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0157	12.20	0.2000	12.42	0.6591	0.1844	19	-0.33	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0444	12.34	0.1000	12.42	0.6591	0.1844	19	-0.12	0%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0421	12.40	0.0800	12.42	0.6591	0.1844	19	-0.03	0%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0433	12.42	0.0300	12.42	0.6591	0.1844	19	0.00	0%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0402	12.50	0.0800	12.42	0.6591	0.1844	19	0.12	0%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0508	12.52	0.0000	12.42	0.6591	0.1844	19	0.15	0%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0368	12.60	0.3420	12.42	0.6591	0.1844	19	0.27	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0423	12.80	0.0400	12.42	0.6591	0.1844	19	0.58	2%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0451	13.08	0.5700	12.42	0.6591	0.1844	19	1.00	3%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0390	13.43	0.4600	12.42	0.6591	0.1844	19	1.54	4%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0307	13.44	0.4710	12.42	0.6591	0.1844	19	1.56	4%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0483	13.92	0.1200	12.42	0.6591	0.1844	19	2.28	6%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0260	13.01	2.190	12.42	0.6591	0.1844	19	0.89	2%	1
020.99	Total Phosphorus as P2O5, Other (%)	0443	12.42	0.0200				2			0
020.99	Total Phosphorus as P2O5, Other (%)	0513	12.48	0.0500				2			0
030.40	Citrate Insoluble Phosphorus as P2O5, Automat... (%)	0096	0.0900	0.0000				1			0
040.40	Indirect Available Phosphorus as P2O5, Automa... (12%)	0096	12.55	0.0200				1			0
040.99	Indirect Available Phosphorus as P2O5, Other (12%)	0487	12.15	0.1000				1			0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (12%)	0102	12.40	0.0000	12.49	0.0887	0.0454	7	-0.92	0%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (12%)	0177	12.40	0.0186	12.49	0.0887	0.0454	7	-0.89	0%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (12%)	0086	12.46	0.1191	12.49	0.0887	0.0454	7	-0.26	0%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (12%)	0040	12.50	0.0000	12.49	0.0887	0.0454	7	0.10	0%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (12%)	0494	12.50	0.0200	12.49	0.0887	0.0454	7	0.10	0%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (12%)	0041	12.54	0.0800	12.49	0.0887	0.0454	7	0.51	0%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (12%)	0049	12.66	0.0800	12.49	0.0887	0.0454	7	1.73	1%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
041.11	Direct Available Phosphorus as P2O5, Gravimet... (12%)	0513	12.42	0.1900	12.55	0.1169	0.0700	4	-1.18	1%	0
041.11	Direct Available Phosphorus as P2O5, Gravimet... (12%)	0105	12.52	0.0000	12.55	0.1169	0.0700	4	-0.28	0%	0
041.11	Direct Available Phosphorus as P2O5, Gravimet... (12%)	0220	12.58	0.0600	12.55	0.1169	0.0700	4	0.24	0%	0
041.11	Direct Available Phosphorus as P2O5, Gravimet... (12%)	0055	12.70	0.0300	12.55	0.1169	0.0700	4	1.22	1%	0
041.20	Direct Available Phosphorus as P2O5, Spectrop... (12%)	0397	11.85	0.0430				2			0
041.20	Direct Available Phosphorus as P2O5, Spectrop... (12%)	0027	12.47	0.5440				2			0
041.21	Direct Available Phosphorus as P2O5, Spectrop... (12%)	0522	12.51	0.0700				1			0
041.40	Direct Available Phosphorus as P2O5, Automate... (12%)	0095	12.29	0.5500	12.49	0.1953	0.2867	3	-1.03	1%	0
041.40	Direct Available Phosphorus as P2O5, Automate... (12%)	0131	12.50	0.2200	12.49	0.1953	0.2867	3	0.07	0%	0
041.40	Direct Available Phosphorus as P2O5, Automate... (12%)	0028	12.68	0.0900	12.49	0.1953	0.2867	3	0.96	1%	0
041.50	Direct Available Phosphorus as P2O5, ICP (12%)	0070	11.25*	0.1000	12.28	1.042	0.3450	6	-0.88	4%	0
041.50	Direct Available Phosphorus as P2O5, ICP (12%)	0007	11.35*	0.3000	12.28	1.042	0.3450	6	-0.79	4%	0
041.50	Direct Available Phosphorus as P2O5, ICP (12%)	0043	12.02	0.1400	12.28	1.042	0.3450	6	-0.22	1%	0
041.50	Direct Available Phosphorus as P2O5, ICP (12%)	0291	12.61	0.0200	12.28	1.042	0.3450	6	0.29	1%	0
041.50	Direct Available Phosphorus as P2O5, ICP (12%)	0452	12.78	0.0100	12.28	1.042	0.3450	6	0.43	2%	0
041.50	Direct Available Phosphorus as P2O5, ICP (12%)	0325	13.65	1.500	12.28	1.042	0.3450	6	1.17	6%	0
041.50	Direct Available Phosphorus as P2O5, ICP (12%)	0368	14.95	3.295	12.28	1.042	0.3450	6	2.29	11%	1
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (12%)	0511	11.87	0.0000	12.25	0.3657	0.1026	7	-0.95	2%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (12%)	0117	12.01	0.0200	12.25	0.3657	0.1026	7	-0.60	1%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (12%)	0423	12.06	0.0700	12.25	0.3657	0.1026	7	-0.49	1%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (12%)	0360	12.22	0.0200	12.25	0.3657	0.1026	7	-0.08	0%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (12%)	0025	12.28	0.0480	12.25	0.3657	0.1026	7	0.07	0%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (12%)	0377	12.53	0.2200	12.25	0.3657	0.1026	7	0.69	1%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (12%)	0494	12.84	0.3400	12.25	0.3657	0.1026	7	1.45	2%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (12%)	0023	6.275*	12.55	12.25	0.3657	0.1026	7			4
041.60	Direct Available Phosphorus as P2O5, Citrate-... (12%)	0486	11.79	0.1900	12.35	0.2865	0.0540	11	-1.83	2%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (12%)	0397	11.85	0.0430	12.35	0.2865	0.0540	11	-1.61	2%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (12%)	0029	12.27	0.0300	12.35	0.2865	0.0540	11	-0.26	0%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (12%)	0472	12.28	0.1300	12.35	0.2865	0.0540	11	-0.23	0%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (12%)	0177	12.30	0.0145	12.35	0.2865	0.0540	11	-0.16	0%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (12%)	0073	12.37	0.0200	12.35	0.2865	0.0540	11	0.08	0%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (12%)	0231	12.38	0.0600	12.35	0.2865	0.0540	11	0.11	0%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (12%)	0354	12.56	0.0370	12.35	0.2865	0.0540	11	0.70	1%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (12%)	0136	12.60	0.0400	12.35	0.2865	0.0540	11	0.83	1%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (12%)	0043	12.61	0.0300	12.35	0.2865	0.0540	11	0.85	1%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (12%)	0105	12.62	0.0000	12.35	0.2865	0.0540	11	0.90	1%	0
041.99	Direct Available Phosphorus as P2O5, Other (12%)	0518	12.04	0.0300	12.34	0.2639	0.2200	3	-1.14	1%	0
041.99	Direct Available Phosphorus as P2O5, Other (12%)	0230	12.45	0.5000	12.34	0.2639	0.2200	3	0.43	0%	0
041.99	Direct Available Phosphorus as P2O5, Other (12%)	0105	12.53	0.1300	12.34	0.2639	0.2200	3	0.71	1%	0
042.99	Water Soluble Orthophosphate as P2O5, Other (%)	0513	10.33	0.0900				1			0
048.20	Water Soluble Phosphorus as P2O5, Spectrophot... (%)	0520	9.780	0.0200	10.53	0.5910	0.0550	4	-1.27	4%	0
048.20	Water Soluble Phosphorus as P2O5, Spectrophot... (%)	0309	10.41	0.0700	10.53	0.5910	0.0550	4	-0.22	1%	0
048.20	Water Soluble Phosphorus as P2O5, Spectrophot... (%)	0405	10.78	0.0300	10.53	0.5910	0.0550	4	0.41	1%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
048.20	Water Soluble Phosphorus as P2O5, Spectrophot... (%)	0420	11.17	0.1000	10.53	0.5910	0.0550	4	1.08	3%	0
048.40	Water Soluble Phosphorus as P2O5, Automated (%)	0096	10.78	0.1000				1			0
048.50	Water Soluble Phosphorus as P2O5, ICP (%)	0444	11.07	0.4400				1			0
050.00	Soluble Potassium as K2O, STPB Oxalate (12%)	0073	11.97	0.1700	12.40	0.3427	0.0613	8	-1.17	2%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (12%)	0522	12.10	0.0600	12.40	0.3427	0.0613	8	-0.81	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (12%)	0405	12.23	0.0100	12.40	0.3427	0.0613	8	-0.47	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (12%)	0231	12.43	0.0100	12.40	0.3427	0.0613	8	0.06	0%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (12%)	0220	12.44	0.0300	12.40	0.3427	0.0613	8	0.09	0%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (12%)	0049	12.55	0.1800	12.40	0.3427	0.0613	8	0.40	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (12%)	0102	12.60	0.0000	12.40	0.3427	0.0613	8	0.53	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (12%)	0055	12.92	0.0300	12.40	0.3427	0.0613	8	1.37	2%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (12%)	0494	12.52	0.6300	12.40	0.3427	0.0613	8	0.30	0%	1
050.30	Soluble Potassium as K2O, AA (Oxalate) (12%)	0234	11.57	0.0200	12.19	0.4320	0.1157	7	-1.31	3%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (12%)	0356	11.79	0.3200	12.19	0.4320	0.1157	7	-0.84	2%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (12%)	0040	12.20	0.2000	12.19	0.4320	0.1157	7	0.01	0%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (12%)	0309	12.28	0.0100	12.19	0.4320	0.1157	7	0.17	0%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (12%)	0157	12.40	0.0000	12.19	0.4320	0.1157	7	0.43	1%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (12%)	0136	12.54	0.1100	12.19	0.4320	0.1157	7	0.71	1%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (12%)	0516	12.59	0.1500	12.19	0.4320	0.1157	7	0.82	2%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (12%)	0428	12.02	0.7789	12.19	0.4320	0.1157	7	-0.36	1%	1
050.31	Soluble Potassium as K2O, AA (Citrate) (12%)	0472	12.03	0.2600				2			0
050.31	Soluble Potassium as K2O, AA (Citrate) (12%)	0498	12.55	0.3000				2			0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	0422	11.31*	0.1100	12.26	0.4714	0.1158	11	-1.90	4%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	0055	11.68	0.0500	12.26	0.4714	0.1158	11	-1.16	2%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	0157	12.00	0.2000	12.26	0.4714	0.1158	11	-0.52	1%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	0390	12.11	0.1200	12.26	0.4714	0.1158	11	-0.30	1%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	0406	12.20	0.2000	12.26	0.4714	0.1158	11	-0.12	0%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	0420	12.22	0.0720	12.26	0.4714	0.1158	11	-0.09	0%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	0324	12.45	0.1000	12.26	0.4714	0.1158	11	0.37	1%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	0292	12.49	0.0100	12.26	0.4714	0.1158	11	0.44	1%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	0397	12.55	0.1220	12.26	0.4714	0.1158	11	0.57	1%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	0230	12.80	0.0000	12.26	0.4714	0.1158	11	1.07	2%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (12%)	0444	12.84	0.2900	12.26	0.4714	0.1158	11	1.14	2%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (12%)	0511	11.80	0.0000	12.21	0.2849	0.0529	7	-1.31	2%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (12%)	0007	12.00	0.2000	12.21	0.2849	0.0529	7	-0.67	1%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (12%)	0483	12.17	0.0000	12.21	0.2849	0.0529	7	-0.13	0%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (12%)	0070	12.25	0.1000	12.21	0.2849	0.0529	7	0.12	0%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (12%)	0291	12.31	0.0100	12.21	0.2849	0.0529	7	0.29	0%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (12%)	0452	12.42	0.0100	12.21	0.2849	0.0529	7	0.64	1%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (12%)	0043	12.55	0.0500	12.21	0.2849	0.0529	7	1.06	1%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (12%)	0260	12.47	6.570	12.21	0.2849	0.0529	7	0.80	1%	1
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (12%)	0117	12.14	0.1200	12.43	0.2640	0.1236	8	-0.99	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (12%)	0354	12.22	0.0180	12.43	0.2640	0.1236	8	-0.73	1%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (12%)	0377	12.28	0.0300	12.43	0.2640	0.1236	8	-0.52	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (12%)	0025	12.31	0.1810	12.43	0.2640	0.1236	8	-0.41	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (12%)	0494	12.48	0.0200	12.43	0.2640	0.1236	8	0.19	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (12%)	0360	12.52	0.1900	12.43	0.2640	0.1236	8	0.31	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (12%)	0486	12.66	0.4000	12.43	0.2640	0.1236	8	0.81	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (12%)	0423	12.82	0.0300	12.43	0.2640	0.1236	8	1.35	2%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (12%)	0023	6.390*	12.78	12.43	0.2640	0.1236	8			4
050.60	Soluble Potassium as K2O, Flame Photometric ... (12%)	0443	11.67	0.0700	12.18	0.3983	0.1151	6	-1.16	2%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (12%)	0309	12.09	0.0000	12.18	0.3983	0.1151	6	-0.21	0%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (12%)	0510	12.09	0.0306	12.18	0.3983	0.1151	6	-0.21	0%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (12%)	0090	12.24	0.1000	12.18	0.3983	0.1151	6	0.13	0%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (12%)	0105	12.27	0.1300	12.18	0.3983	0.1151	6	0.18	0%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (12%)	0169	12.75	0.3600	12.18	0.3983	0.1151	6	1.27	2%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (12%)	0041	12.26	0.8400	12.18	0.3983	0.1151	6	0.17	0%	1
050.61	Soluble Potassium as K2O, Flame Photometric ... (12%)	0035	11.67	1.000	12.11	0.3951	0.3400	4	-1.12	2%	0
050.61	Soluble Potassium as K2O, Flame Photometric ... (12%)	0456	11.90	0.2000	12.11	0.3951	0.3400	4	-0.54	1%	0
050.61	Soluble Potassium as K2O, Flame Photometric ... (12%)	0131	12.36	0.0800	12.11	0.3951	0.3400	4	0.63	1%	0
050.61	Soluble Potassium as K2O, Flame Photometric ... (12%)	0513	12.52	0.0800	12.11	0.3951	0.3400	4	1.03	2%	0
050.62	Soluble Potassium as K2O, Flame Photometric ... (12%)	0105	12.24	0.1500	12.55	0.2202	0.1200	4	-1.41	1%	0
050.62	Soluble Potassium as K2O, Flame Photometric ... (12%)	0029	12.59	0.0700	12.55	0.2202	0.1200	4	0.18	0%	0
050.62	Soluble Potassium as K2O, Flame Photometric ... (12%)	0095	12.61	0.2300	12.55	0.2202	0.1200	4	0.27	0%	0
050.62	Soluble Potassium as K2O, Flame Photometric ... (12%)	0028	12.76	0.0300	12.55	0.2202	0.1200	4	0.95	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0521	10.08*	0.0004	12.16	0.4277	0.2010	25	-4.87	9%	0
050.99	Soluble Potassium as K2O, Other (12%)	0482	11.50	0.6000	12.16	0.4277	0.2010	25	-1.55	3%	0
050.99	Soluble Potassium as K2O, Other (12%)	0506	11.75	0.3000	12.16	0.4277	0.2010	25	-0.97	2%	0
050.99	Soluble Potassium as K2O, Other (12%)	0325	11.85	0.3000	12.16	0.4277	0.2010	25	-0.73	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0523	11.85	0.1000	12.16	0.4277	0.2010	25	-0.73	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0508	11.86	0.3000	12.16	0.4277	0.2010	25	-0.71	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0402	11.87	0.0300	12.16	0.4277	0.2010	25	-0.70	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0096	11.96	0.0000	12.16	0.4277	0.2010	25	-0.47	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0500	12.00	0.0300	12.16	0.4277	0.2010	25	-0.39	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0518	12.00	0.0000	12.16	0.4277	0.2010	25	-0.38	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0043	12.01	0.0500	12.16	0.4277	0.2010	25	-0.37	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0457	12.08	0.3000	12.16	0.4277	0.2010	25	-0.19	0%	0
050.99	Soluble Potassium as K2O, Other (12%)	0300	12.10	0.1300	12.16	0.4277	0.2010	25	-0.16	0%	0
050.99	Soluble Potassium as K2O, Other (12%)	0520	12.13	0.0200	12.16	0.4277	0.2010	25	-0.08	0%	0
050.99	Soluble Potassium as K2O, Other (12%)	0042	12.18	0.0600	12.16	0.4277	0.2010	25	0.04	0%	0
050.99	Soluble Potassium as K2O, Other (12%)	0493	12.20	0.1000	12.16	0.4277	0.2010	25	0.09	0%	0
050.99	Soluble Potassium as K2O, Other (12%)	0177	12.29	0.4711	12.16	0.4277	0.2010	25	0.30	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0368	12.31	0.1571	12.16	0.4277	0.2010	25	0.33	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0421	12.46	0.0100	12.16	0.4277	0.2010	25	0.68	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0389	12.48	0.3500	12.16	0.4277	0.2010	25	0.73	1%	0
050.99	Soluble Potassium as K2O, Other (12%)	0433	12.56	0.0482	12.16	0.4277	0.2010	25	0.94	2%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050.99	Soluble Potassium as K2O, Other (12%)	0487	12.75	0.1000	12.16	0.4277	0.2010	25	1.37	2%	0
050.99	Soluble Potassium as K2O, Other (12%)	0444	12.77	0.3900	12.16	0.4277	0.2010	25	1.41	2%	0
050.99	Soluble Potassium as K2O, Other (12%)	0307	12.82	0.3870	12.16	0.4277	0.2010	25	1.53	3%	0
050.99	Soluble Potassium as K2O, Other (12%)	0451	13.34	0.7900	12.16	0.4277	0.2010	25	2.74	5%	0
060.00	Water (Free), Vacuum Oven (%)	0007	0.8650	0.0100				2			0
060.00	Water (Free), Vacuum Oven (%)	0096	1.045	0.0300				2			0
060.30	Water (Free), AFPC No. 2B (105°C oven for 2 h... (%)	0518	2.045	0.1100				2			0
060.30	Water (Free), AFPC No. 2B (105°C oven for 2 h... (%)	0513	2.245	0.0100				2			0
060.99	Water (Free), Other (%)	0510	0.5260	0.0094	1.360	0.8129	0.0465	3	-1.03	31%	0
060.99	Water (Free), Other (%)	0513	1.405	0.0300	1.360	0.8129	0.0465	3	0.05	2%	0
060.99	Water (Free), Other (%)	0009	2.150	0.1000	1.360	0.8129	0.0465	3	0.97	29%	0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (%)	0105	0.3425	0.0150				1			0
101.03	Acid Soluble Calcium, AA, 965.09, test portio... (%)	0105	0.3520	0.0400				1			0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0420	0.3057	0.0108	0.3280	0.0161	0.0247	7	-1.25	3%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0035	0.3195	0.1010	0.3280	0.0161	0.0247	7	-0.48	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0482	0.3250	0.0100	0.3280	0.0161	0.0247	7	-0.17	0%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0102	0.3290	0.0060	0.3280	0.0161	0.0247	7	0.06	0%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0472	0.3300	0.0000	0.3280	0.0161	0.0247	7	0.11	0%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0096	0.3345	0.0010	0.3280	0.0161	0.0247	7	0.37	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0354	0.3550	0.0440	0.3280	0.0161	0.0247	7	1.52	4%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0483	0.7135	0.3710	0.3280	0.0161	0.0247	7	21.68	59%	1
101.32	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0300	0.3337	0.0007	0.3461	0.0108	0.0029	3	-1.15	2%	0
101.32	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0423	0.3520	0.0080	0.3461	0.0108	0.0029	3	0.55	1%	0
101.32	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0521	0.3526	0.0000	0.3461	0.0108	0.0029	3	0.60	1%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0421	0.3305	0.0090				2			0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0117	0.3347	0.0284				2			0
101.99	Acid Soluble Calcium, Other (%)	0389	0.3150	0.0100				1			0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (%)	0105	0.3075	0.0050	0.3238	0.0192	0.0063	3	-0.85	3%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (%)	0457	0.3190	0.0040	0.3238	0.0192	0.0063	3	-0.25	1%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (%)	0043	0.3450	0.0100	0.3238	0.0192	0.0063	3	1.10	3%	0
121.03	Acid Soluble Magnesium, AA, 965.09, test port... (%)	0105	0.3185	0.0290				1			0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0035	0.2885	0.0310	0.3166	0.0219	0.0217	9	-1.18	4%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0230	0.2965	0.0030	0.3166	0.0219	0.0217	9	-0.85	3%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0472	0.3000	0.0400	0.3166	0.0219	0.0217	9	-0.70	3%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0420	0.3117	0.0023	0.3166	0.0219	0.0217	9	-0.21	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0482	0.3200	0.0200	0.3166	0.0219	0.0217	9	0.14	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0096	0.3250	0.0100	0.3166	0.0219	0.0217	9	0.35	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0354	0.3270	0.0080	0.3166	0.0219	0.0217	9	0.44	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0102	0.3315	0.0078	0.3166	0.0219	0.0217	9	0.63	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (%)	0483	0.4115	0.0730	0.3166	0.0219	0.0217	9	4.00	15%	0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (%)	0423	0.3115	0.0050	0.3215	0.0086	0.0030	3	-1.15	2%	0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (%)	0521	0.3259	0.0000	0.3215	0.0086	0.0030	3	0.51	1%	0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (%)	0300	0.3270	0.0040	0.3215	0.0086	0.0030	3	0.64	1%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
121.33	Acid Soluble Magnesium, ICP, test portion 200... (%)	0117	0.3303	0.0063				2			0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (%)	0421	0.3540	0.0380				2			0
121.99	Acid Soluble Magnesium, Other (%)	0524	0.3122	0.0027	0.3274	0.0200	0.0022	3	-0.76	2%	0
121.99	Acid Soluble Magnesium, Other (%)	0389	0.3200	0.0040	0.3274	0.0200	0.0022	3	-0.37	1%	0
121.99	Acid Soluble Magnesium, Other (%)	0220	0.3500	0.0000	0.3274	0.0200	0.0022	3	1.13	3%	0
143.00	Elemental Sulfur, Gravimetric Sulfur - carbon... (%)	0055	13.32	0.0500				1			0
143.99	Elemental Sulfur, Other (%)	0472	11.91	0.0500	12.54	0.9683	0.3500	3	-0.65	3%	0
143.99	Elemental Sulfur, Other (%)	0389	12.05	0.1000	12.54	0.9683	0.3500	3	-0.50	2%	0
143.99	Elemental Sulfur, Other (%)	0390	13.65	0.9000	12.54	0.9683	0.3500	3	1.15	4%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0027	12.49	0.5500	12.76	0.4514	0.2490	4	-0.61	1%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0522	12.52	0.1600	12.76	0.4514	0.2490	4	-0.54	1%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0397	12.61	0.2160	12.76	0.4514	0.2490	4	-0.34	1%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0043	13.44	0.0700	12.76	0.4514	0.2490	4	1.49	3%	0
145.99	Sulfate Sulfur, HCl soluble, Other (%)	0518	9.070	0.0200	10.65	1.546	0.0933	3	-1.02	7%	0
145.99	Sulfate Sulfur, HCl soluble, Other (%)	0169	10.72	0.2600	10.65	1.546	0.0933	3	0.05	0%	0
145.99	Sulfate Sulfur, HCl soluble, Other (%)	0444	12.16	0.0000	10.65	1.546	0.0933	3	0.98	7%	0
148.00	Total Sulfur, Combustion (9%)	0025	12.34	0.2300	12.80	0.6878	0.1920	5	-0.68	2%	0
148.00	Total Sulfur, Combustion (9%)	0157	12.40	0.0000	12.80	0.6878	0.1920	5	-0.58	2%	0
148.00	Total Sulfur, Combustion (9%)	0029	12.53	0.2200	12.80	0.6878	0.1920	5	-0.40	1%	0
148.00	Total Sulfur, Combustion (9%)	0360	12.75	0.3100	12.80	0.6878	0.1920	5	-0.08	0%	0
148.00	Total Sulfur, Combustion (9%)	0451	14.00	0.2000	12.80	0.6878	0.1920	5	1.74	5%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (9%)	0457	8.970*	0.0400	12.32	0.6325	0.0867	10	-4.92	14%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (9%)	0510	10.70*	0.0474	12.32	0.6325	0.0867	10	-2.38	7%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (9%)	0105	12.19	0.1300	12.32	0.6325	0.0867	10	-0.20	1%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (9%)	0102	12.21	0.0700	12.32	0.6325	0.0867	10	-0.17	0%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (9%)	0040	12.50	0.0000	12.32	0.6325	0.0867	10	0.27	1%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (9%)	0028	12.55	0.0800	12.32	0.6325	0.0867	10	0.34	1%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (9%)	0231	12.60	0.2000	12.32	0.6325	0.0867	10	0.41	1%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (9%)	0324	12.65	0.3000	12.32	0.6325	0.0867	10	0.49	1%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (9%)	0157	12.70	0.0000	12.32	0.6325	0.0867	10	0.56	2%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (9%)	0095	13.06	0.0000	12.32	0.6325	0.0867	10	1.09	3%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (9%)	0230	13.50	2.800	12.32	0.6325	0.0867	10	1.74	5%	1
148.07	Total Sulfur, ICP, test portion as in 2006.03... (9%)	0515	9.616*	0.4457	12.54	0.6760	0.1398	10	-4.02	12%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (9%)	0444	11.76	0.1200	12.54	0.6760	0.1398	10	-1.07	3%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (9%)	0117	12.23	0.2500	12.54	0.6760	0.1398	10	-0.43	1%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (9%)	0292	12.24	0.0700	12.54	0.6760	0.1398	10	-0.42	1%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (9%)	0486	12.63	0.1600	12.54	0.6760	0.1398	10	0.12	0%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (9%)	0177	12.69	0.0472	12.54	0.6760	0.1398	10	0.20	1%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (9%)	0102	12.83	0.0818	12.54	0.6760	0.1398	10	0.39	1%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (9%)	0421	12.99	0.0100	12.54	0.6760	0.1398	10	0.61	2%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (9%)	0483	13.25	0.1000	12.54	0.6760	0.1398	10	0.98	3%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (9%)	0368	13.29	0.1128	12.54	0.6760	0.1398	10	1.03	3%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (9%)	0023	6.203*	12.41	12.54	0.6760	0.1398	10			4

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
148.99	Total Sulfur, Other (9%)	0520	10.62*	0.0200	12.08	1.093	0.1919	12	-1.34	6%	0
148.99	Total Sulfur, Other (9%)	0220	10.70*	0.0500	12.08	1.093	0.1919	12	-1.27	6%	0
148.99	Total Sulfur, Other (9%)	0422	10.86*	0.3700	12.08	1.093	0.1919	12	-1.12	5%	0
148.99	Total Sulfur, Other (9%)	0523	11.76	0.2200	12.08	1.093	0.1919	12	-0.30	1%	0
148.99	Total Sulfur, Other (9%)	0506	11.95	0.5000	12.08	1.093	0.1919	12	-0.12	1%	0
148.99	Total Sulfur, Other (9%)	0300	12.08	0.0300	12.08	1.093	0.1919	12	-0.01	0%	0
148.99	Total Sulfur, Other (9%)	0096	12.10	0.1100	12.08	1.093	0.1919	12	0.01	0%	0
148.99	Total Sulfur, Other (9%)	0482	12.65	0.5000	12.08	1.093	0.1919	12	0.52	2%	0
148.99	Total Sulfur, Other (9%)	0354	12.69	0.1600	12.08	1.093	0.1919	12	0.56	3%	0
148.99	Total Sulfur, Other (9%)	0307	13.03	0.2430	12.08	1.093	0.1919	12	0.86	4%	0
148.99	Total Sulfur, Other (9%)	0452	13.26	0.0100	12.08	1.093	0.1919	12	1.07	5%	0
148.99	Total Sulfur, Other (9%)	0291	13.34	0.0900	12.08	1.093	0.1919	12	1.14	5%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0423	12.28	0.0500	12.77	0.6628	0.0481	4	-0.75	2%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0040	12.50	0.0800	12.77	0.6628	0.0481	4	-0.41	1%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0521	12.56	0.0000	12.77	0.6628	0.0481	4	-0.32	1%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0524	13.75	0.0622	12.77	0.6628	0.0481	4	1.47	4%	0
151.30	Acid Soluble Arsenic, ICP (ppm)	0444	186.5	7.000	235.1	39.77	3.801	6	-1.09	10%	0
151.30	Acid Soluble Arsenic, ICP (ppm)	0523	196.2	0.9000	235.1	39.77	3.801	6	-0.87	8%	0
151.30	Acid Soluble Arsenic, ICP (ppm)	0520	247.3	0.4000	235.1	39.77	3.801	6	0.27	3%	0
151.30	Acid Soluble Arsenic, ICP (ppm)	0368	253.7	14.50	235.1	39.77	3.801	6	0.42	4%	0
151.30	Acid Soluble Arsenic, ICP (ppm)	0102	254.3	0.0080	235.1	39.77	3.801	6	0.43	4%	0
151.30	Acid Soluble Arsenic, ICP (ppm)	0511	272.6	0.0000	235.1	39.77	3.801	6	0.84	8%	0
151.32	Acid Soluble Arsenic, ICP, 2006.03 (ppm)	0300	246.0	0.9900				2			0
151.32	Acid Soluble Arsenic, ICP, 2006.03 (ppm)	0521	252.2	0.0000				2			0
151.33	Acid Soluble Arsenic, ICP, 2006.03 modified ... (ppm)	0117	227.2	1.900	239.9	12.54	6.652	4	-1.02	3%	0
151.33	Acid Soluble Arsenic, ICP, 2006.03 modified ... (ppm)	0515	231.1	7.178	239.9	12.54	6.652	4	-0.70	2%	0
151.33	Acid Soluble Arsenic, ICP, 2006.03 modified ... (ppm)	0220	250.5	9.000	239.9	12.54	6.652	4	0.84	2%	0
151.33	Acid Soluble Arsenic, ICP, 2006.03 modified ... (ppm)	0037	250.9	8.530	239.9	12.54	6.652	4	0.87	2%	0
151.34	Acid Soluble Arsenic, ICP, EPA 3050B/6010C (ppm)	0515	215.7	5.963				2			0
151.34	Acid Soluble Arsenic, ICP, EPA 3050B/6010C (ppm)	0230	245.5	1.000				2			0
151.99	Acid Soluble Arsenic, Other (ppm)	0027	180.1	10.20				2			0
151.99	Acid Soluble Arsenic, Other (ppm)	0009	260.0	0.0000				2			0
165.00	Acid Soluble Boron, Spectrophotometric (0.1%)	0220	0.0995	0.0010	0.1037	0.0069	0.0029	5	-0.61	2%	0
165.00	Acid Soluble Boron, Spectrophotometric (0.1%)	0506	0.1000	0.0000	0.1037	0.0069	0.0029	5	-0.53	2%	0
165.00	Acid Soluble Boron, Spectrophotometric (0.1%)	0055	0.1010	0.0020	0.1037	0.0069	0.0029	5	-0.39	1%	0
165.00	Acid Soluble Boron, Spectrophotometric (0.1%)	0397	0.1020	0.0002	0.1037	0.0069	0.0029	5	-0.24	1%	0
165.00	Acid Soluble Boron, Spectrophotometric (0.1%)	0105	0.1159	0.0112	0.1037	0.0069	0.0029	5	1.77	6%	0
165.30	Acid Soluble Boron, ICP, test portion in 982... (0.1%)	0324	0.0974	0.0018	0.1085	0.0083	0.0618	15	-1.34	5%	0
165.30	Acid Soluble Boron, ICP, test portion in 982... (0.1%)	0521	0.1005	0.0000	0.1085	0.0083	0.0618	15	-0.97	4%	0
165.30	Acid Soluble Boron, ICP, test portion in 982... (0.1%)	0354	0.1010	0.0000	0.1085	0.0083	0.0618	15	-0.91	3%	0
165.30	Acid Soluble Boron, ICP, test portion in 982... (0.1%)	0102	0.1019	0.0026	0.1085	0.0083	0.0618	15	-0.80	3%	0
165.30	Acid Soluble Boron, ICP, test portion in 982... (0.1%)	0494	0.1030	0.0013	0.1085	0.0083	0.0618	15	-0.67	3%	0
165.30	Acid Soluble Boron, ICP, test portion in 982... (0.1%)	0444	0.1050	0.0100	0.1085	0.0083	0.0618	15	-0.43	2%	0



Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.1%)	0389	0.1055	0.0010	0.1085	0.0083	0.0618	15	-0.37	1%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.1%)	0231	0.1100	0.0000	0.1085	0.0083	0.0618	15	0.18	1%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.1%)	0291	0.1100	0.0000	0.1085	0.0083	0.0618	15	0.18	1%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.1%)	0307	0.1110	0.0060	0.1085	0.0083	0.0618	15	0.30	1%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.1%)	0433	0.1113	0.0006	0.1085	0.0083	0.0618	15	0.33	1%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.1%)	0520	0.1145	0.0002	0.1085	0.0083	0.0618	15	0.72	3%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.1%)	0136	0.1150	0.0100	0.1085	0.0083	0.0618	15	0.78	3%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.1%)	0397	0.5266	0.8629	0.1085	0.0083	0.0618	15	50.52	193%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.1%)	0422	1.055	0.0300	0.1085	0.0083	0.0618	15	114.38	436%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.1%)	0377	267.5	9.000	0.1085	0.0083	0.0618	15	32314.50	123189%	2
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.1%)	0023	0.05400*	0.1080	0.1085	0.0083	0.0618	15			4
165.70	Acid Soluble Boron , Titrimetric (0.1%)	0309	0.0900	0.0000				1			0
165.99	Acid Soluble Boron , Other (0.1%)	0230	0.0932	0.0002	0.1058	0.0094	0.0026	19	-1.35	6%	0
165.99	Acid Soluble Boron , Other (0.1%)	0523	0.0935	0.0010	0.1058	0.0094	0.0026	19	-1.32	6%	0
165.99	Acid Soluble Boron , Other (0.1%)	0486	0.0950	0.0100	0.1058	0.0094	0.0026	19	-1.16	5%	0
165.99	Acid Soluble Boron , Other (0.1%)	0457	0.0986	0.0033	0.1058	0.0094	0.0026	19	-0.78	3%	0
165.99	Acid Soluble Boron , Other (0.1%)	0452	0.1000	0.0000	0.1058	0.0094	0.0026	19	-0.62	3%	0
165.99	Acid Soluble Boron , Other (0.1%)	0117	0.1002	0.0020	0.1058	0.0094	0.0026	19	-0.60	3%	0
165.99	Acid Soluble Boron , Other (0.1%)	0423	0.1015	0.0010	0.1058	0.0094	0.0026	19	-0.46	2%	0
165.99	Acid Soluble Boron , Other (0.1%)	0524	0.1030	0.0020	0.1058	0.0094	0.0026	19	-0.30	1%	0
165.99	Acid Soluble Boron , Other (0.1%)	0043	0.1050	0.0060	0.1058	0.0094	0.0026	19	-0.09	0%	0
165.99	Acid Soluble Boron , Other (0.1%)	0482	0.1050	0.0100	0.1058	0.0094	0.0026	19	-0.09	0%	0
165.99	Acid Soluble Boron , Other (0.1%)	0421	0.1070	0.0020	0.1058	0.0094	0.0026	19	0.13	1%	0
165.99	Acid Soluble Boron , Other (0.1%)	0025	0.1090	0.0020	0.1058	0.0094	0.0026	19	0.34	2%	0
165.99	Acid Soluble Boron , Other (0.1%)	0095	0.1100	0.0000	0.1058	0.0094	0.0026	19	0.45	2%	0
165.99	Acid Soluble Boron , Other (0.1%)	0360	0.1100	0.0040	0.1058	0.0094	0.0026	19	0.45	2%	0
165.99	Acid Soluble Boron , Other (0.1%)	0472	0.1100	0.0000	0.1058	0.0094	0.0026	19	0.45	2%	0
165.99	Acid Soluble Boron , Other (0.1%)	0042	0.1115	0.0050	0.1058	0.0094	0.0026	19	0.61	3%	0
165.99	Acid Soluble Boron , Other (0.1%)	0300	0.1185	0.0004	0.1058	0.0094	0.0026	19	1.35	6%	0
165.99	Acid Soluble Boron , Other (0.1%)	0511	0.1200	0.0000	0.1058	0.0094	0.0026	19	1.51	7%	0
165.99	Acid Soluble Boron , Other (0.1%)	0483	0.1215	0.0010	0.1058	0.0094	0.0026	19	1.68	7%	0
165.99	Acid Soluble Boron , Other (0.1%)	0515	0.1177	0.0277	0.1058	0.0094	0.0026	19	1.26	6%	1
171.10	Water Soluble Boron , Spectrophotometric (%)	0518	0.1225	0.0030				1			0
171.99	Water Soluble Boron , Other (%)	0444	0.0920	0.0080	0.1008	0.0078	0.0083	3	-1.14	4%	0
171.99	Water Soluble Boron , Other (%)	0402	0.1040	0.0080	0.1008	0.0078	0.0083	3	0.41	2%	0
171.99	Water Soluble Boron , Other (%)	0027	0.1065	0.0090	0.1008	0.0078	0.0083	3	0.73	3%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0444	171.5	25.00	229.8	33.87	6.924	12	-1.72	13%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0523	180.2	1.400	229.8	33.87	6.924	12	-1.46	11%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0035	189.5	5.000	229.8	33.87	6.924	12	-1.19	9%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0520	229.5	0.0400	229.8	33.87	6.924	12	-0.01	0%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0389	234.5	1.000	229.8	33.87	6.924	12	0.14	1%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0096	238.4	2.200	229.8	33.87	6.924	12	0.25	2%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0452	241.8	3.900	229.8	33.87	6.924	12	0.35	3%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
181.30	Acid Soluble Cadmium , ICP (ppm)	0524	244.5	2.893	229.8	33.87	6.924	12	0.43	3%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0102	247.1	19.15	229.8	33.87	6.924	12	0.51	4%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0511	252.1	0.0000	229.8	33.87	6.924	12	0.66	5%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0482	258.5	1.000	229.8	33.87	6.924	12	0.85	6%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0368	262.6	21.50	229.8	33.87	6.924	12	0.97	7%	0
181.32	Acid Soluble Cadmium , ICP, 2006.03 (ppm)	0300	220.5	2.130				1			0
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified ... (ppm)	0515	225.6	9.671	241.9	22.84	11.51	3	-0.71	3%	0
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified ... (ppm)	0117	232.2	10.10	241.9	22.84	11.51	3	-0.43	2%	0
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified ... (ppm)	0037	268.1	14.77	241.9	22.84	11.51	3	1.14	5%	0
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	0230	232.0	4.000				2			0
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	0515	240.3	19.06				2			0
181.99	Acid Soluble Cadmium , Other (ppm)	0027	178.1	10.20	235.5	40.27	7.840	5	-1.43	12%	0
181.99	Acid Soluble Cadmium , Other (ppm)	0220	226.0	8.000	235.5	40.27	7.840	5	-0.24	2%	0
181.99	Acid Soluble Cadmium , Other (ppm)	0487	231.0	6.000	235.5	40.27	7.840	5	-0.11	1%	0
181.99	Acid Soluble Cadmium , Other (ppm)	0009	255.0	10.00	235.5	40.27	7.840	5	0.48	4%	0
181.99	Acid Soluble Cadmium , Other (ppm)	0506	287.5	5.000	235.5	40.27	7.840	5	1.29	11%	0
190.00	Water Soluble Chlorine, Titrimetric (%)	0105	9.600	0.0200				1			0
191.30	Acid Soluble Chromium , ICP (ppm)	0444	39.64	2.620	49.20	4.162	1.133	10	-2.14	10%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0389	46.25	0.5000	49.20	4.162	1.133	10	-0.66	3%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0096	47.15	1.700	49.20	4.162	1.133	10	-0.46	2%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0035	47.55	2.900	49.20	4.162	1.133	10	-0.37	2%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0368	48.20	2.000	49.20	4.162	1.133	10	-0.22	1%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0523	49.22	1.240	49.20	4.162	1.133	10	0.00	0%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0482	49.65	0.1000	49.20	4.162	1.133	10	0.10	0%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0511	52.20	0.0000	49.20	4.162	1.133	10	0.67	3%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0102	53.40	0.2510	49.20	4.162	1.133	10	0.94	4%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0452	56.17	0.0200	49.20	4.162	1.133	10	1.56	7%	0
191.32	Acid Soluble Chromium , ICP, 2006.03 (ppm)	0300	48.99	0.0760				1			0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0117	52.14	1.890	55.25	4.181	2.953	3	-0.74	3%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0515	53.61	6.148	55.25	4.181	2.953	3	-0.39	1%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0037	60.00	0.8200	55.25	4.181	2.953	3	1.14	4%	0
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C (ppm)	0230	47.55	0.3000				2			0
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C (ppm)	0515	51.15	1.148				2			0
191.99	Acid Soluble Chromium , Other (ppm)	0220	56.75	2.900	68.17	19.13	3.800	3	-0.60	8%	0
191.99	Acid Soluble Chromium , Other (ppm)	0009	57.50	3.000	68.17	19.13	3.800	3	-0.56	8%	0
191.99	Acid Soluble Chromium , Other (ppm)	0506	90.25	5.500	68.17	19.13	3.800	3	1.15	16%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0524	0.1510	0.0889	2.341	0.3459	0.1055	9	-5.84	47%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0523	2.064	0.0090	2.341	0.3459	0.1055	9	-0.74	6%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0102	2.098	0.0820	2.341	0.3459	0.1055	9	-0.65	5%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0511	2.280	0.0000	2.341	0.3459	0.1055	9	-0.16	1%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0389	2.350	0.1000	2.341	0.3459	0.1055	9	0.02	0%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0482	2.500	0.4000	2.341	0.3459	0.1055	9	0.42	3%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0096	2.560	0.0200	2.341	0.3459	0.1055	9	0.58	5%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
202.30	Acid Soluble Cobalt , ICP (ppm)	0035	2.635	0.2500	2.341	0.3459	0.1055	9	0.78	6%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0452	2.760	0.0000	2.341	0.3459	0.1055	9	1.12	9%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0368	3.405	1.710	2.341	0.3459	0.1055	9	2.84	23%	1
202.32	Acid Soluble Cobalt , ICP, 2006.03 (ppm)	0423	2.575	0.1300				2			0
202.32	Acid Soluble Cobalt , ICP, 2006.03 (ppm)	0300	3.042	0.1760				2			0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0515	0.7890	0.6106				2			0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0037	3.165	0.3500				2			0
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	0515	0.7420	1.484				0			4
202.99	Acid Soluble Cobalt , Other (ppm)	0220	2.150	0.1000				2			0
202.99	Acid Soluble Cobalt , Other (ppm)	0009	2.800	0.2000				2			0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.1%)	0498	0.1650	0.0100	0.1809	0.0105	0.0105	7	-1.37	4%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.1%)	0457	0.1765	0.0050	0.1809	0.0105	0.0105	7	-0.38	1%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.1%)	0043	0.1790	0.0020	0.1809	0.0105	0.0105	7	-0.17	1%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.1%)	0516	0.1800	0.0200	0.1809	0.0105	0.0105	7	-0.08	0%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.1%)	0029	0.1837	0.0074	0.1809	0.0105	0.0105	7	0.24	1%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.1%)	0105	0.1855	0.0010	0.1809	0.0105	0.0105	7	0.39	1%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.1%)	0040	0.2042	0.0279	0.1809	0.0105	0.0105	7	2.00	6%	0
221.03	Acid Soluble Copper , AA, 965.09, test portio... (0.1%)	0397	0.1529*	0.0009	0.1743	0.0192	0.0030	3	-1.11	6%	0
221.03	Acid Soluble Copper , AA, 965.09, test portio... (0.1%)	0105	0.1800	0.0080	0.1743	0.0192	0.0030	3	0.30	2%	0
221.03	Acid Soluble Copper , AA, 965.09, test portio... (0.1%)	0231	0.1900	0.0000	0.1743	0.0192	0.0030	3	0.82	5%	0
221.03	Acid Soluble Copper , AA, 965.09, test portio... (0.1%)	0023	0.09100*	0.1820	0.1743	0.0192	0.0030	3			4
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0055	0.1600	0.0000	0.1781	0.0143	0.0053	24	-1.27	5%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0324	0.1600	0.0040	0.1781	0.0143	0.0053	24	-1.27	5%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0354	0.1600	0.0020	0.1781	0.0143	0.0053	24	-1.27	5%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0360	0.1600	0.0020	0.1781	0.0143	0.0053	24	-1.27	5%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0452	0.1600	0.0000	0.1781	0.0143	0.0053	24	-1.27	5%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0472	0.1700	0.0000	0.1781	0.0143	0.0053	24	-0.57	2%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0230	0.1705	0.0050	0.1781	0.0143	0.0053	24	-0.53	2%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0035	0.1715	0.0270	0.1781	0.0143	0.0053	24	-0.46	2%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0433	0.1744	0.0008	0.1781	0.0143	0.0053	24	-0.26	1%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0307	0.1745	0.0070	0.1781	0.0143	0.0053	24	-0.25	1%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0291	0.1750	0.0100	0.1781	0.0143	0.0053	24	-0.22	1%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0095	0.1800	0.0000	0.1781	0.0143	0.0053	24	0.13	1%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0096	0.1811	0.0019	0.1781	0.0143	0.0053	24	0.20	1%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0511	0.1820	0.0000	0.1781	0.0143	0.0053	24	0.27	1%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0368	0.1822	0.0067	0.1781	0.0143	0.0053	24	0.28	1%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0420	0.1829	0.0009	0.1781	0.0143	0.0053	24	0.33	1%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0402	0.1845	0.0070	0.1781	0.0143	0.0053	24	0.44	2%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0444	0.1850	0.0100	0.1781	0.0143	0.0053	24	0.48	2%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0482	0.1850	0.0100	0.1781	0.0143	0.0053	24	0.48	2%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0102	0.1884	0.0003	0.1781	0.0143	0.0053	24	0.71	3%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0157	0.1905	0.0030	0.1781	0.0143	0.0053	24	0.86	3%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0483	0.1990	0.0040	0.1781	0.0143	0.0053	24	1.46	6%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0422	0.2000	0.0040	0.1781	0.0143	0.0053	24	1.53	6%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0390	0.2045	0.0210	0.1781	0.0143	0.0053	24	1.84	7%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.1%)	0377	434.0	12.00	0.1781	0.0143	0.0053	24	30302.00	121759%	2
221.32	Acid Soluble Copper , ICP, test portion 2006.... (0.1%)	0521	0.1716	0.0000	0.1826	0.0177	0.0014	3	-0.62	3%	0
221.32	Acid Soluble Copper , ICP, test portion 2006.... (0.1%)	0300	0.1731	0.0023	0.1826	0.0177	0.0014	3	-0.54	3%	0
221.32	Acid Soluble Copper , ICP, test portion 2006.... (0.1%)	0423	0.2030	0.0020	0.1826	0.0177	0.0014	3	1.15	6%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.1%)	0486	0.1600	0.0000	0.1794	0.0171	0.0049	7	-1.02	5%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.1%)	0177	0.1637	0.0007	0.1794	0.0171	0.0049	7	-0.83	4%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.1%)	0136	0.1750	0.0100	0.1794	0.0171	0.0049	7	-0.23	1%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.1%)	0117	0.1758	0.0036	0.1794	0.0171	0.0049	7	-0.19	1%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.1%)	0025	0.1865	0.0110	0.1794	0.0171	0.0049	7	0.38	2%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.1%)	0037	0.1945	0.0050	0.1794	0.0171	0.0049	7	0.80	4%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.1%)	0421	0.2000	0.0040	0.1794	0.0171	0.0049	7	1.09	6%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.1%)	0515	0.1805	0.0312	0.1794	0.0171	0.0049	7	0.06	0%	1
221.99	Acid Soluble Copper , Other (0.1%)	0042	0.1200*	0.0000	0.1665	0.0217	0.0073	10	-1.99	14%	0
221.99	Acid Soluble Copper , Other (0.1%)	0027	0.1390*	0.0060	0.1665	0.0217	0.0073	10	-1.18	8%	0
221.99	Acid Soluble Copper , Other (0.1%)	0515	0.1464*	0.0047	0.1665	0.0217	0.0073	10	-0.86	6%	0
221.99	Acid Soluble Copper , Other (0.1%)	0523	0.1705	0.0210	0.1665	0.0217	0.0073	10	0.17	1%	0
221.99	Acid Soluble Copper , Other (0.1%)	0389	0.1720	0.0040	0.1665	0.0217	0.0073	10	0.24	2%	0
221.99	Acid Soluble Copper , Other (0.1%)	0524	0.1765	0.0200	0.1665	0.0217	0.0073	10	0.43	3%	0
221.99	Acid Soluble Copper , Other (0.1%)	0009	0.1800	0.0000	0.1665	0.0217	0.0073	10	0.58	4%	0
221.99	Acid Soluble Copper , Other (0.1%)	0506	0.1800	0.0000	0.1665	0.0217	0.0073	10	0.58	4%	0
221.99	Acid Soluble Copper , Other (0.1%)	0220	0.1815	0.0070	0.1665	0.0217	0.0073	10	0.64	5%	0
221.99	Acid Soluble Copper , Other (0.1%)	0487	0.1850	0.0100	0.1665	0.0217	0.0073	10	0.79	6%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (0.5%)	0498	0.6950*	0.0300	0.8910	0.0910	0.0256	7	-1.95	11%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (0.5%)	0516	0.8250	0.0300	0.8910	0.0910	0.0256	7	-0.66	4%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (0.5%)	0043	0.8750	0.0300	0.8910	0.0910	0.0256	7	-0.16	1%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (0.5%)	0457	0.9020	0.0080	0.8910	0.0910	0.0256	7	0.11	1%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (0.5%)	0029	0.9392	0.0241	0.8910	0.0910	0.0256	7	0.48	3%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (0.5%)	0040	0.9600	0.0200	0.8910	0.0910	0.0256	7	0.69	4%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (0.5%)	0105	0.9815	0.0370	0.8910	0.0910	0.0256	7	0.90	5%	0
241.03	Acid Soluble Iron, AA, 965.09, test portion 2... (0.5%)	0105	0.9525	0.0930				1			0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0472	0.8400	0.0200	0.9167	0.0481	0.0200	23	-1.59	4%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0230	0.8655	0.0330	0.9167	0.0481	0.0200	23	-1.06	3%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0354	0.8715	0.0130	0.9167	0.0481	0.0200	23	-0.94	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0433	0.8719	0.0074	0.9167	0.0481	0.0200	23	-0.93	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0452	0.8750	0.0100	0.9167	0.0481	0.0200	23	-0.87	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0055	0.8800	0.0200	0.9167	0.0481	0.0200	23	-0.76	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0291	0.8850	0.0100	0.9167	0.0481	0.0200	23	-0.66	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0420	0.8867	0.0109	0.9167	0.0481	0.0200	23	-0.62	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0095	0.9000	0.0000	0.9167	0.0481	0.0200	23	-0.35	1%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0231	0.9000	0.0000	0.9167	0.0481	0.0200	23	-0.35	1%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0444	0.9050	0.0100	0.9167	0.0481	0.0200	23	-0.24	1%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0096	0.9090	0.0000	0.9167	0.0481	0.0200	23	-0.16	0%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0360	0.9180	0.0080	0.9167	0.0481	0.0200	23	0.03	0%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0368	0.9224	0.0008	0.9167	0.0481	0.0200	23	0.12	0%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0102	0.9343	0.0043	0.9167	0.0481	0.0200	23	0.37	1%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0482	0.9400	0.0400	0.9167	0.0481	0.0200	23	0.48	1%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0035	0.9445	0.0370	0.9167	0.0481	0.0200	23	0.58	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0157	0.9470	0.0020	0.9167	0.0481	0.0200	23	0.63	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0324	0.9470	0.0220	0.9167	0.0481	0.0200	23	0.63	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0511	0.9700	0.0000	0.9167	0.0481	0.0200	23	1.11	3%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0422	1.010	0.0000	0.9167	0.0481	0.0200	23	1.94	5%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0390	1.064	0.1320	0.9167	0.0481	0.0200	23	3.06	8%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0483	1.080	0.0800	0.9167	0.0481	0.0200	23	3.40	9%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (0.5%)	0377	2,308	45.00	0.9167	0.0481	0.0200	23	47966.30	125812%	2
241.32	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0300	0.8696	0.0025	0.9015	0.0401	0.0025	3	-0.80	2%	0
241.32	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0423	0.8885	0.0050	0.9015	0.0401	0.0025	3	-0.32	1%	0
241.32	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0521	0.9465	0.0000	0.9015	0.0401	0.0025	3	1.12	2%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0486	0.8250	0.0100	0.8938	0.0513	0.0160	9	-1.24	4%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0515	0.8669	0.0686	0.8938	0.0513	0.0160	9	-0.48	2%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0397	0.8741	0.0060	0.8938	0.0513	0.0160	9	-0.35	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0025	0.8780	0.0040	0.8938	0.0513	0.0160	9	-0.28	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0177	0.8800	0.0056	0.8938	0.0513	0.0160	9	-0.25	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0117	0.8839	0.0011	0.8938	0.0513	0.0160	9	-0.18	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0136	0.9100	0.0000	0.8938	0.0513	0.0160	9	0.29	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0037	0.9555	0.0470	0.8938	0.0513	0.0160	9	1.11	3%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0421	0.9770	0.0020	0.8938	0.0513	0.0160	9	1.50	5%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (0.5%)	0023	0.4110*	0.8220	0.8938	0.0513	0.0160	9			4
241.99	Acid Soluble Iron, Other (0.5%)	0518	0.4500*	0.0200	0.8625	0.1843	0.0180	9	-2.07	24%	0
241.99	Acid Soluble Iron, Other (0.5%)	0042	0.5950*	0.0300	0.8625	0.1843	0.0180	9	-1.34	16%	0
241.99	Acid Soluble Iron, Other (0.5%)	0389	0.8565	0.0050	0.8625	0.1843	0.0180	9	-0.03	0%	0
241.99	Acid Soluble Iron, Other (0.5%)	0523	0.8880	0.0040	0.8625	0.1843	0.0180	9	0.13	1%	0
241.99	Acid Soluble Iron, Other (0.5%)	0515	0.9166	0.0049	0.8625	0.1843	0.0180	9	0.27	3%	0
241.99	Acid Soluble Iron, Other (0.5%)	0220	0.9400	0.0200	0.8625	0.1843	0.0180	9	0.39	4%	0
241.99	Acid Soluble Iron, Other (0.5%)	0506	0.9700	0.0200	0.8625	0.1843	0.0180	9	0.54	6%	0
241.99	Acid Soluble Iron, Other (0.5%)	0524	0.9775	0.0192	0.8625	0.1843	0.0180	9	0.58	7%	0
241.99	Acid Soluble Iron, Other (0.5%)	0027	1.033	0.0390	0.8625	0.1843	0.0180	9	0.85	10%	0
251.30	Acid Soluble Lead , ICP (ppm)	0523	817.7	29.20	1,041	118.1	13.16	10	-1.76	11%	0
251.30	Acid Soluble Lead , ICP (ppm)	0482	916.5	21.00	1,041	118.1	13.16	10	-0.98	6%	0
251.30	Acid Soluble Lead , ICP (ppm)	0035	920.0	28.00	1,041	118.1	13.16	10	-0.95	6%	0
251.30	Acid Soluble Lead , ICP (ppm)	0389	1,025	8.000	1,041	118.1	13.16	10	-0.12	1%	0
251.30	Acid Soluble Lead , ICP (ppm)	0096	1,071	10.00	1,041	118.1	13.16	10	0.24	1%	0
251.30	Acid Soluble Lead , ICP (ppm)	0368	1,098	12.00	1,041	118.1	13.16	10	0.45	3%	0
251.30	Acid Soluble Lead , ICP (ppm)	0102	1,107	12.29	1,041	118.1	13.16	10	0.52	3%	0
251.30	Acid Soluble Lead , ICP (ppm)	0452	1,129	11.00	1,041	118.1	13.16	10	0.69	4%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
251.30	Acid Soluble Lead , ICP (ppm)	0520	1,129	0.1000	1,041	118.1	13.16	10	0.69	4%	0
251.30	Acid Soluble Lead , ICP (ppm)	0511	1,150	0.0000	1,041	118.1	13.16	10	0.86	5%	0
251.30	Acid Soluble Lead , ICP (ppm)	0524	1,057	81.51	1,041	118.1	13.16	10	0.13	1%	1
251.32	Acid Soluble Lead , ICP, 2006.03 (ppm)	0300	1,020	5.180				1			0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0117	1,061	24.00	1,124	58.18	81.50	3	-1.08	3%	0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0037	1,135	21.37	1,124	58.18	81.50	3	0.20	1%	0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0515	1,176	199.1	1,124	58.18	81.50	3	0.89	2%	0
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	0230	1,025	10.00				2			0
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	0515	1,091	40.40				2			0
251.99	Acid Soluble Lead , Other (ppm)	0220	1,095	15.00				2			0
251.99	Acid Soluble Lead , Other (ppm)	0487	1,145	50.00				2			0
261.00	Acid Soluble Manganese , AA, Mn2+ only (0.4%)	0516	0.4050	0.0100				2			0
261.00	Acid Soluble Manganese , AA, Mn2+ only (0.4%)	0043	0.4275	0.0030				2			0
261.11	Acid Soluble Manganese , AA, total Mn (0.4%)	0498	0.3550*	0.0100				1			0
261.12	Acid Soluble Manganese , AA, inorganic 965.09... (0.4%)	0457	0.3995	0.0030	0.4261	0.0189	0.0055	4	-1.40	3%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.09... (0.4%)	0029	0.4267	0.0030	0.4261	0.0189	0.0055	4	0.03	0%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.09... (0.4%)	0040	0.4350	0.0020	0.4261	0.0189	0.0055	4	0.47	1%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.09... (0.4%)	0105	0.4430	0.0140	0.4261	0.0189	0.0055	4	0.90	2%	0
261.15	Acid Soluble Manganese , AA, 965.09, test por... (0.4%)	0105	0.4235	0.0310				1			0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0035	0.3840	0.0060	0.4271	0.0339	0.0118	13	-1.27	5%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0291	0.3950	0.0100	0.4271	0.0339	0.0118	13	-0.95	4%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0452	0.3950	0.0100	0.4271	0.0339	0.0118	13	-0.95	4%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0433	0.4052	0.0007	0.4271	0.0339	0.0118	13	-0.65	3%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0420	0.4149	0.0023	0.4271	0.0339	0.0118	13	-0.36	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0231	0.4200	0.0000	0.4271	0.0339	0.0118	13	-0.21	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0354	0.4230	0.0040	0.4271	0.0339	0.0118	13	-0.12	0%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0368	0.4346	0.0166	0.4271	0.0339	0.0118	13	0.22	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0096	0.4348	0.0041	0.4271	0.0339	0.0118	13	0.23	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0472	0.4350	0.0100	0.4271	0.0339	0.0118	13	0.23	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0102	0.4549	0.0195	0.4271	0.0339	0.0118	13	0.82	3%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0422	0.4790	0.0040	0.4271	0.0339	0.0118	13	1.53	6%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0390	0.4950	0.0660	0.4271	0.0339	0.0118	13	2.00	8%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0377	1,133	44.00	0.4271	0.0339	0.0118	13	33378.59	132592%	2
261.31	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0230	0.4015	0.0130	0.4258	0.0158	0.0060	5	-1.54	3%	0
261.31	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0324	0.4235	0.0030	0.4258	0.0158	0.0060	5	-0.15	0%	0
261.31	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0360	0.4290	0.0040	0.4258	0.0158	0.0060	5	0.20	0%	0
261.31	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0511	0.4300	0.0000	0.4258	0.0158	0.0060	5	0.27	0%	0
261.31	Acid Soluble Manganese , ICP, test portion 97... (0.4%)	0482	0.4450	0.0100	0.4258	0.0158	0.0060	5	1.22	2%	0
261.32	Acid Soluble Manganese , ICP, test portion in... (0.4%)	0444	0.3850	0.0300	0.4136	0.0248	0.0096	5	-1.15	3%	0
261.32	Acid Soluble Manganese , ICP, test portion in... (0.4%)	0055	0.3950	0.0100	0.4136	0.0248	0.0096	5	-0.75	2%	0
261.32	Acid Soluble Manganese , ICP, test portion in... (0.4%)	0402	0.4195	0.0010	0.4136	0.0248	0.0096	5	0.24	1%	0
261.32	Acid Soluble Manganese , ICP, test portion in... (0.4%)	0520	0.4198	0.0002	0.4136	0.0248	0.0096	5	0.25	1%	0
261.32	Acid Soluble Manganese , ICP, test portion in... (0.4%)	0483	0.4485	0.0070	0.4136	0.0248	0.0096	5	1.41	4%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
261.34	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0423	0.3980	0.0120	0.4174	0.0293	0.0045	3	-0.66	2%	0
261.34	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0300	0.4032	0.0015	0.4174	0.0293	0.0045	3	-0.49	2%	0
261.34	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0521	0.4511	0.0000	0.4174	0.0293	0.0045	3	1.15	4%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0486	0.3750	0.0100	0.4075	0.0175	0.0068	9	-1.71	4%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0397	0.3932	0.0099	0.4075	0.0175	0.0068	9	-0.76	2%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0025	0.3990	0.0060	0.4075	0.0175	0.0068	9	-0.45	1%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0117	0.3994	0.0010	0.4075	0.0175	0.0068	9	-0.43	1%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0515	0.4065	0.0048	0.4075	0.0175	0.0068	9	-0.05	0%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0136	0.4200	0.0000	0.4075	0.0175	0.0068	9	0.66	2%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0177	0.4209	0.0002	0.4075	0.0175	0.0068	9	0.71	2%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0421	0.4215	0.0030	0.4075	0.0175	0.0068	9	0.74	2%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0037	0.4260	0.0260	0.4075	0.0175	0.0068	9	0.97	2%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (0.4%)	0023	0.2035*	0.4070	0.4075	0.0175	0.0068	9			4
261.99	Acid Soluble Manganese , Other (0.4%)	0506	0.3950	0.0100	0.4190	0.0195	0.0057	9	-1.14	3%	0
261.99	Acid Soluble Manganese , Other (0.4%)	0515	0.4075	0.0005	0.4190	0.0195	0.0057	9	-0.55	1%	0
261.99	Acid Soluble Manganese , Other (0.4%)	0389	0.4075	0.0010	0.4190	0.0195	0.0057	9	-0.54	1%	0
261.99	Acid Soluble Manganese , Other (0.4%)	0095	0.4100	0.0000	0.4190	0.0195	0.0057	9	-0.43	1%	0
261.99	Acid Soluble Manganese , Other (0.4%)	0220	0.4150	0.0100	0.4190	0.0195	0.0057	9	-0.19	0%	0
261.99	Acid Soluble Manganese , Other (0.4%)	0523	0.4175	0.0130	0.4190	0.0195	0.0057	9	-0.07	0%	0
261.99	Acid Soluble Manganese , Other (0.4%)	0042	0.4300	0.0000	0.4190	0.0195	0.0057	9	0.52	1%	0
261.99	Acid Soluble Manganese , Other (0.4%)	0524	0.4401	0.0099	0.4190	0.0195	0.0057	9	1.00	3%	0
261.99	Acid Soluble Manganese , Other (0.4%)	0027	0.4735	0.0070	0.4190	0.0195	0.0057	9	2.59	7%	0
271.30	Water Soluble Manganese , ICP, Ext. 972.03 (%)	0444	0.2050	0.0100				1			0
281.00	Acid Soluble Mercury , AA (ppm)	0511	19.50	0.0000				2			0
281.00	Acid Soluble Mercury , AA (ppm)	0117	20.03	1.290				2			0
281.30	Acid Soluble Mercury , ICP (ppm)	0515	16.08	0.2150				1			0
281.99	Acid Soluble Mercury , Other (ppm)	0487	27.90	0.0000				1			0
289.30	Acid Soluble Molybdenum , ICP (250ppm)	0368	6.029	0.0550	9.111	1.998	0.2081	10	-1.43	17%	0
289.30	Acid Soluble Molybdenum , ICP (250ppm)	0096	7.750	0.1000	9.111	1.998	0.2081	10	-0.63	7%	0
289.30	Acid Soluble Molybdenum , ICP (250ppm)	0521	8.042	0.0000	9.111	1.998	0.2081	10	-0.50	6%	0
289.30	Acid Soluble Molybdenum , ICP (250ppm)	0433	8.560	0.2075	9.111	1.998	0.2081	10	-0.26	3%	0
289.30	Acid Soluble Molybdenum , ICP (250ppm)	0102	8.596	0.8960	9.111	1.998	0.2081	10	-0.24	3%	0
289.30	Acid Soluble Molybdenum , ICP (250ppm)	0452	9.100	0.0000	9.111	1.998	0.2081	10	0.00	0%	0
289.30	Acid Soluble Molybdenum , ICP (250ppm)	0397	9.344	0.2223	9.111	1.998	0.2081	10	0.11	1%	0
289.30	Acid Soluble Molybdenum , ICP (250ppm)	0511	10.00	0.0000	9.111	1.998	0.2081	10	0.41	5%	0
289.30	Acid Soluble Molybdenum , ICP (250ppm)	0035	11.60	0.6000	9.111	1.998	0.2081	10	1.16	14%	0
289.30	Acid Soluble Molybdenum , ICP (250ppm)	0095	12.00	0.0000	9.111	1.998	0.2081	10	1.35	16%	0
289.32	Acid Soluble Molybdenum , ICP, 2006.03 (250ppm)	0300	8.773	0.1190				1			0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (250ppm)	0515	7.317	1.608	8.842	1.297	0.6709	6	-1.05	9%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (250ppm)	0486	7.500	1.000	8.842	1.297	0.6709	6	-0.92	8%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (250ppm)	0423	9.120	0.2800	8.842	1.297	0.6709	6	0.19	2%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (250ppm)	0117	9.454	0.3980	8.842	1.297	0.6709	6	0.42	3%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (250ppm)	0037	9.760	0.7200	8.842	1.297	0.6709	6	0.63	5%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (250ppm)	0220	9.900	0.0200	8.842	1.297	0.6709	6	0.73	6%	0
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010... (250ppm)	0515	6.463	2.728				2			0
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010... (250ppm)	0230	9.590	0.1800				2			0
289.99	Acid Soluble Molybdenum , Other (250ppm)	0220	9.650	1.700	10.63	1.483	0.9767	3	-0.66	5%	0
289.99	Acid Soluble Molybdenum , Other (250ppm)	0009	9.900	0.2000	10.63	1.483	0.9767	3	-0.49	3%	0
289.99	Acid Soluble Molybdenum , Other (250ppm)	0042	12.34	1.030	10.63	1.483	0.9767	3	1.15	8%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0444	28.09	0.2300	35.92	6.907	1.835	9	-1.05	11%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0523	29.79	1.120	35.92	6.907	1.835	9	-0.82	9%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0035	31.80	1.000	35.92	6.907	1.835	9	-0.55	6%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0482	32.00	0.6000	35.92	6.907	1.835	9	-0.52	5%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0521	35.03	0.0000	35.92	6.907	1.835	9	-0.12	1%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0524	37.07	4.148	35.92	6.907	1.835	9	0.15	2%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0096	41.35	0.7000	35.92	6.907	1.835	9	0.73	8%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0452	43.19	1.070	35.92	6.907	1.835	9	0.97	10%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0102	44.93	7.649	35.92	6.907	1.835	9	1.20	13%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0368	53.25	19.49	35.92	6.907	1.835	9	2.32	24%	1
291.32	Acid Soluble Nickel , ICP, 2006.03 (ppm)	0300	39.11	0.4900				1			0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0515	38.12	8.818				2			0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0117	41.21	2.420				2			0
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	0515	34.62	6.657				2			0
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	0230	37.95	3.300				2			0
291.99	Acid Soluble Nickel , Other (ppm)	0506	33.75	4.500	37.28	3.093	2.433	3	-1.14	5%	0
291.99	Acid Soluble Nickel , Other (ppm)	0220	38.60	1.800	37.28	3.093	2.433	3	0.43	2%	0
291.99	Acid Soluble Nickel , Other (ppm)	0009	39.50	1.000	37.28	3.093	2.433	3	0.72	3%	0
301.30	Acid Soluble Selenium , ICP (ppm)	0524	1.820	0.5200				2			0
301.30	Acid Soluble Selenium , ICP (ppm)	0520	7.250	0.1000				2			0
301.33	Acid Soluble Selenium , ICP, 2006.03 modified... (ppm)	0515	0.0000	0.0000				0			4
301.34	Acid Soluble Selenium , ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
301.99	Acid Soluble Selenium , Other (ppm)	0009	1.800	0.2000				1			0
311.32	Sodium, ICP, 2006.03 test portion (%)	0521	0.2892	0.0000				1			0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0102	0.1617	0.0021	0.2479	0.0796	0.0054	3	-1.08	17%	0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0035	0.2635	0.0130	0.2479	0.0796	0.0054	3	0.20	3%	0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0423	0.3185	0.0010	0.2479	0.0796	0.0054	3	0.89	14%	0
311.99	Sodium, Other (%)	0482	0.2850	0.0100	0.3038	0.0210	0.0070	3	-0.90	3%	0
311.99	Sodium, Other (%)	0096	0.3000	0.0000	0.3038	0.0210	0.0070	3	-0.18	1%	0
311.99	Sodium, Other (%)	0354	0.3265	0.0110	0.3038	0.0210	0.0070	3	1.08	4%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (2%)	0043	1.880	0.0400	1.983	0.0675	0.0375	9	-1.41	3%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (2%)	0428	1.947	0.0023	1.983	0.0675	0.0375	9	-0.49	1%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (2%)	0498	1.950	0.1000	1.983	0.0675	0.0375	9	-0.45	1%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (2%)	0169	1.959	0.0050	1.983	0.0675	0.0375	9	-0.33	1%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (2%)	0029	1.972	0.0660	1.983	0.0675	0.0375	9	-0.15	0%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (2%)	0040	1.986	0.0490	1.983	0.0675	0.0375	9	0.04	0%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (2%)	0516	2.030	0.0200	1.983	0.0675	0.0375	9	0.65	1%	0



Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (2%)	0105	2.037	0.0210	1.983	0.0675	0.0375	9	0.73	1%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (2%)	0457	2.178	0.0340	1.983	0.0675	0.0375	9	2.67	5%	0
321.03	Acid Soluble Zinc , AA, 965.09, test portion ... (2%)	0105	2.000	0.0640				1			0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0472	1.850	0.0600	2.020	0.1284	0.0728	25	-1.32	4%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0307	1.861	0.0390	2.020	0.1284	0.0728	25	-1.24	4%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0291	1.865	0.0100	2.020	0.1284	0.0728	25	-1.21	4%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0360	1.890	0.1000	2.020	0.1284	0.0728	25	-1.01	3%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0292	1.915	0.0100	2.020	0.1284	0.0728	25	-0.82	3%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0422	1.925	0.0900	2.020	0.1284	0.0728	25	-0.74	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0444	1.935	0.1100	2.020	0.1284	0.0728	25	-0.66	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0482	1.935	0.0700	2.020	0.1284	0.0728	25	-0.66	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0324	1.945	0.1500	2.020	0.1284	0.0728	25	-0.58	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0055	1.975	0.0500	2.020	0.1284	0.0728	25	-0.35	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0095	1.990	0.0200	2.020	0.1284	0.0728	25	-0.23	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0354	1.997	0.0350	2.020	0.1284	0.0728	25	-0.18	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0368	2.020	0.0577	2.020	0.1284	0.0728	25	0.00	0%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0433	2.026	0.0001	2.020	0.1284	0.0728	25	0.05	0%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0230	2.035	0.3100	2.020	0.1284	0.0728	25	0.12	0%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0096	2.039	0.0080	2.020	0.1284	0.0728	25	0.15	0%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0420	2.040	0.0400	2.020	0.1284	0.0728	25	0.15	0%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0157	2.090	0.1600	2.020	0.1284	0.0728	25	0.54	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0102	2.095	0.0590	2.020	0.1284	0.0728	25	0.58	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0520	2.136	0.0002	2.020	0.1284	0.0728	25	0.91	3%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0035	2.155	0.0700	2.020	0.1284	0.0728	25	1.05	3%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0231	2.170	0.0200	2.020	0.1284	0.0728	25	1.17	4%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0452	2.190	0.0000	2.020	0.1284	0.0728	25	1.32	4%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0483	2.235	0.0300	2.020	0.1284	0.0728	25	1.67	5%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0390	2.240	0.3200	2.020	0.1284	0.0728	25	1.71	5%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (2%)	0377	4,752	50.00	2.020	0.1284	0.0728	25	36983.51	117566%	2
321.32	Acid Soluble Zinc , ICP, test portion 2006.03... (2%)	0300	1.970	0.0080	2.049	0.0732	0.0127	3	-1.07	2%	0
321.32	Acid Soluble Zinc , ICP, test portion 2006.03... (2%)	0521	2.061	0.0000	2.049	0.0732	0.0127	3	0.16	0%	0
321.32	Acid Soluble Zinc , ICP, test portion 2006.03... (2%)	0423	2.115	0.0300	2.049	0.0732	0.0127	3	0.91	2%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (2%)	0117	1.875	0.0040	2.026	0.1304	0.0471	9	-1.07	4%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (2%)	0037	1.945	0.0700	2.026	0.1304	0.0471	9	-0.57	2%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (2%)	0177	1.948	0.0317	2.026	0.1304	0.0471	9	-0.55	2%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (2%)	0397	1.967	0.0487	2.026	0.1304	0.0471	9	-0.42	1%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (2%)	0136	2.020	0.0400	2.026	0.1304	0.0471	9	-0.04	0%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (2%)	0025	2.030	0.0600	2.026	0.1304	0.0471	9	0.03	0%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (2%)	0515	2.033	0.0592	2.026	0.1304	0.0471	9	0.05	0%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (2%)	0421	2.195	0.0900	2.026	0.1304	0.0471	9	1.19	4%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (2%)	0486	2.250	0.0200	2.026	0.1304	0.0471	9	1.58	6%	0
321.99	Acid Soluble Zinc , Other (2%)	0515	1.797*	0.1595	2.001	0.1167	0.0585	8	-1.60	5%	0
321.99	Acid Soluble Zinc , Other (2%)	0523	1.939	0.0110	2.001	0.1167	0.0585	8	-0.49	2%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321.99	Acid Soluble Zinc , Other (2%)	0389	1.950	0.0000	2.001	0.1167	0.0585	8	-0.40	1%	0
321.99	Acid Soluble Zinc , Other (2%)	0506	1.985	0.0300	2.001	0.1167	0.0585	8	-0.13	0%	0
321.99	Acid Soluble Zinc , Other (2%)	0220	2.015	0.0700	2.001	0.1167	0.0585	8	0.11	0%	0
321.99	Acid Soluble Zinc , Other (2%)	0027	2.039	0.0540	2.001	0.1167	0.0585	8	0.30	1%	0
321.99	Acid Soluble Zinc , Other (2%)	0042	2.080	0.1400	2.001	0.1167	0.0585	8	0.62	2%	0
321.99	Acid Soluble Zinc , Other (2%)	0524	2.207	0.0037	2.001	0.1167	0.0585	8	1.61	5%	0
325.30	Water Soluble Zinc , ICP (%)	0444	1.135	0.0300	1.668	0.4636	0.0567	3	-1.15	16%	0
325.30	Water Soluble Zinc , ICP (%)	0406	1.895	0.0900	1.668	0.4636	0.0567	3	0.49	7%	0
325.30	Water Soluble Zinc , ICP (%)	0402	1.975	0.0500	1.668	0.4636	0.0567	3	0.66	9%	0
325.99	Water Soluble Zinc, Other (%)	0518	2.025	0.0700				1			0

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier and a 4 flag indicates rejected due to 0 value submitted. Robust statistics not used if < 6 labs used in calculations, in this case the Z Scores are included for information only (Grey). An offset lab value with an astrix indicates that the value is lower than the Analyte value less the IA. Method or Analyte codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely for the purpose of this Proficiency Testing program.