

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Methods: 150

Sample # 150811

Statistical Summary

Labs Reporting: 87

Grade 25-5-15

Issue Date : 09/30/2015

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 (%)	8	8	10.78	1.782	10.28		0.3522	0.0880	3.43%		0.1651	2.82%
001.99	Ammoniacal Nitrogen, Other (%)	12	11	10.18	0.5765	10.08		0.3417	0.0729	3.39%		0.0963	2.83%
002.20	Nitrate Nitrogen, Jones Modified (%)	2	2	15.10	2.899								
002.99	Nitrate Nitrogen, Other (%)	10	9	13.85	1.074	13.84		1.192	0.2810	8.61%		0.0732	2.69%
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	7	7	20.18	5.967	23.25		0.9858	0.2635	4.24%		0.1371	2.49%
009.99	Ammoniacal Plus Nitrate Nitrogen, Other (%)	1		10.14									
010.11	Total Nitrogen, Modified Comprehensive (25%)	5	5	22.77	2.425	22.77	0.7753	2.425	0.7669	10.65%	1.70%	0.1540	2.50%
010.12	Total Nitrogen, Salicylic (25%)	5	5	23.93	0.6214	23.93	0.7753	0.6213	0.1965	2.60%	1.62%	0.3180	2.48%
010.60	Total Nitrogen, Combustion (25%)	52	51	23.40	1.381	23.56	0.7753	1.110	0.1099	4.71%	1.65%	0.2830	2.49%
010.99	Total Nitrogen, Other (25%)	5	5	24.41	1.324	24.41	0.7753	1.324	0.4187	5.43%	1.59%	0.5160	2.47%
020.10	Total Phosphorus as P2O5, Gravimetric Quinolinium ... (%)	9	8	5.875	0.1096	5.868		0.1098	0.0274	1.87%		0.0890	3.06%
020.20	Total Phosphorus as P2O5, Spectrophotometric Molyb... (%)	20	19	5.946	1.439	5.774		0.1927	0.0313	3.34%		0.1012	3.07%
020.40	Total Phosphorus as P2O5, Automated (%)	6	6	5.765	0.2130	5.761		0.2332	0.0673	4.05%		0.2400	3.07%
020.50	Total Phosphorus as P2O5, ICP (%)	12	11	5.804	0.4797	5.705		0.3158	0.0673	5.54%		0.2349	3.08%
020.99	Total Phosphorus as P2O5, Other (%)	4	4	6.048	0.6827	6.048		0.6827	0.2414	11.29%		0.3575	3.05%
040.20	Indirect Available Phosphorus as P2O5, Spectrophot... (5%)	3	3	5.635	0.1922	5.635	0.6700	0.1922	0.0784	3.41%	5.94%	0.0700	3.08%
040.40	Indirect Available Phosphorus as P2O5, Automated (5%)	1		5.515									
041.10	Direct Available Phosphorus as P2O5, Gravimetric Q... (5%)	4	4	5.881	0.1725	5.881	0.6700	0.1725	0.0610	2.93%	5.70%	0.1975	3.06%
041.11	Direct Available Phosphorus as P2O5, Gravimetric Q... (5%)	3	3	6.000	0.2475	6.000	0.6700	0.2475	0.1011	4.13%	5.58%	0.2200	3.05%
041.20	Direct Available Phosphorus as P2O5, Spectrophotom... (5%)	1		4.850									
041.21	Direct Available Phosphorus as P2O5, Spectrophotom... (5%)	2	2	5.893	0.2440								
041.31	Direct Available Phosphorus as P2O5, Alkalimetric ... (5%)	1		5.620									
041.40	Direct Available Phosphorus as P2O5, Automated (5%)	2	2	5.875	0.2121								
041.50	Direct Available Phosphorus as P2O5, ICP (5%)	4	4	5.741	0.4965	5.741	0.6700	0.4965	0.1755	8.65%	5.83%	0.1725	3.07%
041.51	Direct Available Phosphorus as P2O5, ICP, Citrate-... (5%)	5	5	5.781	0.1433	5.781	0.6700	0.1433	0.0453	2.48%	5.79%	0.1540	3.07%
041.60	Direct Available Phosphorus as P2O5, Citrate-EDTA ... (5%)	9	8	5.773	0.2811	5.776	0.6700	0.2082	0.0521	3.61%	5.80%	0.0898	3.07%
041.99	Direct Available Phosphorus as P2O5, Other (5%)	2	2	9.390	4.681								
048.10	Water Soluble Phosphorus as P2O5, Gravimetric Quin... (%)	1		5.910									
048.20	Water Soluble Phosphorus as P2O5, Spectrophotometr... (%)	2	2	5.605	0.0071								
048.40	Water Soluble Phosphorus as P2O5, Automated (%)	1		5.535									
048.50	Water Soluble Phosphorus as P2O5, ICP (%)	1		5.890									

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050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	12	12	15.20	0.5269	15.20	0.9077	0.5261	0.1074	3.46%	2.99%	0.2075	2.66%
050.10	Soluble Potassium as K2O, STPB Citrate (15%)	1		15.08									
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	6	6	15.06	2.057	15.01	0.9077	1.059	0.3057	7.06%	3.02%	0.3950	2.66%
050.31	Soluble Potassium as K2O, AA (Citrate) (15%)	2	2	14.64	1.333								
050.32	Soluble Potassium as K2O, AA (Citrate-EDTA) (15%)	1		14.42									
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	9	9	14.56	0.8299	14.64	0.9077	0.7790	0.1836	5.32%	3.10%	0.4038	2.67%
050.51	Soluble Potassium as K2O, ICP (Citrate) (15%)	5	5	14.66	5.551	14.66	0.9077	5.551	1.755	37.85%	3.10%	0.1860	2.67%
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	9	8	14.86	0.5461	14.90	0.9077	0.4313	0.1078	2.89%	3.05%	0.3070	2.66%
050.60	Soluble Potassium as K2O, Flame Photometric (Oxala... (15%)	7	7	15.20	0.7593	15.23	0.9077	0.2764	0.0739	1.81%	2.98%	0.2000	2.65%
050.61	Soluble Potassium as K2O, Flame Photometric (Citra... (15%)	4	4	15.13	1.107	15.13	0.9077	1.107	0.3913	7.32%	3.00%	0.1379	2.66%
050.62	Soluble Potassium as K2O, Flame Photometric (Citra... (15%)	3	3	15.44	0.1706	15.44	0.9077	0.1706	0.0697	1.10%	2.94%	0.2867	2.65%
050.99	Soluble Potassium as K2O, Other (15%)	23	23	15.13	1.731	15.07	0.9077	0.6380	0.0941	4.23%	3.01%	0.2546	2.66%
060.00	Water (Free), Vacuum Oven (%)	4	4	0.7723	0.4066	0.7723		0.4066	0.1437	52.64%		0.0723	4.16%
060.99	Water (Free), Other (%)	2	2	1.390	0.2475								
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (%)	1		0.0111									
101.03	Acid Soluble Calcium, AA, 965.09, test portion 200... (%)	1		0.0114									
101.30	Acid Soluble Calcium, ICP, test portion inorganic ... (%)	9	9	0.0310	0.0198	0.0281		0.0164	0.0039	58.31%		0.0167	6.85%
101.33	Acid Soluble Calcium, ICP, test portion 2006.03A-C... (%)	1		0.0177									
101.99	Acid Soluble Calcium, Other (%)	1		0.0325									
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (0.1%)	9	9	0.4069	0.1708	0.3543	0.2180	0.0241	0.0057	6.81%	30.77%	0.0139	4.68%
121.03	Acid Soluble Magnesium, AA, 965.09, test portion 2... (0.1%)	2	2	0.3420	0.0254								
121.30	Acid Soluble Magnesium, ICP, test portion inorgani... (0.1%)	25	24	0.3735	0.0420	0.3671	0.2180	0.0201	0.0029	5.47%	29.70%	0.0160	4.65%
121.32	Acid Soluble Magnesium, ICP, test portion 2006.03A... (0.1%)	2	2	0.3580	0.0141								
121.33	Acid Soluble Magnesium, ICP, test portion 2006.03A... (0.1%)	7	6	0.3588	0.0232	0.3638	0.2180	0.0175	0.0051	4.82%	29.96%	0.0108	4.66%
121.99	Acid Soluble Magnesium, Other (0.1%)	6	5	0.3534	0.0200	0.3534	0.2180	0.0200	0.0063	5.65%	30.84%	0.0319	4.68%
131.00	Water Soluble Magnesium, AA (%)	1		0.3580									
131.30	Water Soluble Magnesium, ICP (%)	7	6	0.3671	0.0251	0.3726		0.0157	0.0045	4.20%		0.0138	4.64%
143.99	Elemental Sulfur, Other (%)	2	2	0.3233	0.0265								
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulfur - ... (%)	3	3	0.1347	0.1258	0.1347		0.1258	0.0513	93.40%		0.0135	5.41%
145.99	Sulfate Sulfur, HCl soluble, Other (%)	2	2	0.2975	0.0106								
146.00	Total Sulfur in Liquid, Gravimetric - sulfate, sul... (%)	1		0.3400									
148.00	Total Sulfur, Combustion (0.13%)	2	2	0.4180	0.1598								
148.01	Total Sulfur, Gravimetric - sulfate and elemental... (0.13%)	8	7	0.1613	0.1290	0.1613	0.2146	0.1463	0.0391	90.68%	66.53%	0.0121	5.26%
148.04	Total Sulfur, ICP, w/Br digestion (0.13%)	1		0.3000									
148.07	Total Sulfur, ICP, test portion as in 2006.03 modi... (0.13%)	9	9	0.3165	0.0633	0.3138	0.2146	0.0515	0.0121	16.42%	34.20%	0.0322	4.76%
148.99	Total Sulfur, Other (0.13%)	10	10	0.2865	0.0791	0.2989	0.2146	0.0609	0.0136	20.37%	35.90%	0.0134	4.80%
151.00	Acid Soluble Arsenic , AA, test portion as in 200... (ppm)	1		0.0400									
151.30	Acid Soluble Arsenic , ICP (ppm)	3	3	1.161	1.853	1.161		1.853	0.7565	159.65%		0.3579	15.64%
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified w/9:... (ppm)	1		0.0000									
151.34	Acid Soluble Arsenic , ICP, EPA 3050B/6010C (ppm)	1		0.0000									
151.99	Acid Soluble Arsenic , Other (ppm)	1		0.8000									
165.00	Acid Soluble Boron , Spectrophotometric (0.025%)	8	8	0.0508	0.0586	0.0320	0.0075	0.0087	0.0022	27.19%	11.66%	0.0038	6.71%

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165.30	Acid Soluble Boron , ICP, test portion in 982.01 ... (0.025%)	15	14	0.0304	0.0037	0.0298	0.0075	0.0027	0.0005	8.92%	12.51%	0.0018	6.79%
165.99	Acid Soluble Boron , Other (0.025%)	14	13	0.0309	0.0059	0.0300	0.0075	0.0030	0.0006	10.00%	12.46%	0.0014	6.78%
171.99	Water Soluble Boron , Other (%)	2	2	0.0288	0.0018								
181.00	Acid Soluble Cadmium , AA, test portion as in 200... (ppm)	2	2	0.4750	0.4596								
181.30	Acid Soluble Cadmium , ICP (ppm)	3	3	0.0583	0.0090	0.0583		0.0090	0.0037	15.44%		0.0081	24.53%
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified w/9:... (ppm)	1		1.770									
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	1		0.0000									
181.99	Acid Soluble Cadmium , Other (ppm)	2	2	0.0550	0.0636								
190.00	Water Soluble Chlorine, Titrimetric (%)	1		0.1950									
191.00	Acid Soluble Chromium , AA, test portion as in 20... (ppm)	1		5.000									
191.30	Acid Soluble Chromium , ICP (ppm)	8	8	1.490	0.9731	1.368		0.7933	0.1983	57.97%		0.1265	15.26%
191.33	Acid Soluble Chromium , ICP, 2006.03 modified w/9... (ppm)	2	2	2.858	1.073								
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C (ppm)	1		2.557									
191.99	Acid Soluble Chromium , Other (ppm)	2	1	1.400									
202.00	Acid Soluble Cobalt , AA, test portion as in 2006... (ppm)	1		12.00									
202.30	Acid Soluble Cobalt , ICP (ppm)	8	8	17.74	2.221	17.60		2.180	0.5451	12.39%		0.5078	10.39%
202.32	Acid Soluble Cobalt , ICP, 2006.03 (ppm)	1		15.35									
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w/9:3... (ppm)	3	3	14.75	1.571	14.75		1.571	0.6413	10.65%		0.9602	10.67%
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	1		17.63									
202.99	Acid Soluble Cobalt , Other (ppm)	3	3	16.69	2.533	16.69		2.533	1.034	15.18%		0.8000	10.47%
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.0125%)	8	7	0.0172	0.0095	0.0150	0.0065	0.0008	0.0002	5.58%	21.56%	0.0004	7.52%
221.03	Acid Soluble Copper , AA, 965.09, test portion 20... (0.0125%)	3	3	0.0153	0.0006	0.0153	0.0065	0.0006	0.0002	3.98%	21.21%	0.0001	7.50%
221.30	Acid Soluble Copper , ICP, test portion inorganic... (0.0125%)	23	22	0.0153	0.0032	0.0151	0.0065	0.0023	0.0004	15.45%	21.52%	0.0006	7.52%
221.32	Acid Soluble Copper , ICP, test portion 2006.03A-... (0.0125%)	2	2	0.0142	0.0011								
221.33	Acid Soluble Copper , ICP, test portion 2006.03A-... (0.0125%)	7	7	0.0138	0.0018	0.0139	0.0065	0.0019	0.0005	13.90%	23.39%	0.0003	7.61%
221.99	Acid Soluble Copper , Other (0.0125%)	9	9	0.0145	0.0027	0.0145	0.0065	0.0030	0.0007	20.88%	22.40%	0.0007	7.56%
241.00	Acid Soluble Iron , AA, inorganic 965.09 (0.125%)	9	9	0.1451	0.0657	0.1274	0.0178	0.0064	0.0015	5.05%	6.99%	0.0054	5.45%
241.03	Acid Soluble Iron , AA, 965.09, test portion 2006... (0.125%)	2	2	0.1269	0.0002								
241.30	Acid Soluble Iron , ICP, test portion inorganic 96... (0.125%)	26	26	0.1312	0.0298	0.1311	0.0178	0.0099	0.0014	7.58%	6.79%	0.0057	5.43%
241.32	Acid Soluble Iron , ICP, test portion 2006.03A-C ... (0.125%)	2	2	0.1170	0.0014								
241.33	Acid Soluble Iron , ICP, test portion 2006.03A-C, ... (0.125%)	7	7	0.1182	0.0226	0.1200	0.0178	0.0220	0.0059	18.31%	7.43%	0.0042	5.50%
241.99	Acid Soluble Iron , Other (0.125%)	7	7	0.1223	0.0198	0.1224	0.0178	0.0222	0.0059	18.09%	7.28%	0.0097	5.49%
251.00	Acid Soluble Lead , AA, test portion as in 2006.0... (ppm)	1		2.000									
251.30	Acid Soluble Lead , ICP (ppm)	7	7	2.486	0.7357	2.442		0.7333	0.1960	30.03%		0.1297	13.99%
251.32	Acid Soluble Lead , ICP, 2006.03 (ppm)	1		1.805									
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9:3 H... (ppm)	2	2	2.072	0.3590								
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	1		3.406									
251.99	Acid Soluble Lead , Other (ppm)	5	5	9.997	17.45	9.997		17.45	5.517	174.51%		10.89	11.31%
261.00	Acid Soluble Manganese , AA, Mn2+ only (0.063%)	1		0.1666									
261.11	Acid Soluble Manganese , AA, total Mn (0.063%)	2	2	0.0653	0.0025								
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (0.063%)	6	6	0.0668	0.0048	0.0665	0.0115	0.0049	0.0014	7.43%	8.62%	0.0021	6.01%
261.15	Acid Soluble Manganese , AA, 965.09, test portion... (0.063%)	2	2	0.0655	0.0032								

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261.30	Acid Soluble Manganese , ICP, test portion 972.02... (0.063%)	18	18	0.0648	0.0097	0.0653	0.0115	0.0043	0.0007	6.59%	8.78%	0.0027	6.03%
261.31	Acid Soluble Manganese , ICP, test portion 972.02... (0.063%)	3	3	0.0704	0.0041	0.0704	0.0115	0.0041	0.0017	5.76%	8.15%	0.0037	5.96%
261.32	Acid Soluble Manganese , ICP, test portion inorga... (0.063%)	4	4	0.0686	0.0081	0.0686	0.0115	0.0081	0.0029	11.82%	8.36%	0.0036	5.99%
261.33	Acid Soluble Manganese , ICP, test portion organi... (0.063%)	1		0.0470									
261.34	Acid Soluble Manganese , ICP, test portion 2006.0... (0.063%)	2	2	0.0590	0.0021								
261.35	Acid Soluble Manganese , ICP, test portion 2006.0... (0.063%)	6	5	0.0646	0.0024	0.0646	0.0115	0.0024	0.0008	3.78%	8.88%	0.0013	6.04%
261.99	Acid Soluble Manganese , Other (0.063%)	8	8	0.0607	0.0091	0.0607	0.0115	0.0104	0.0026	17.06%	9.45%	0.0049	6.10%
271.30	Water Soluble Manganese , ICP, Ext. 972.03 (%)	1		0.0630									
281.00	Acid Soluble Mercury , AA (ppm)	1		0.0053									
281.30	Acid Soluble Mercury , ICP (ppm)	3	1	0.0216		0.0607		0.0104	0.0073	17.06%		0.0035	24.39%
289.00	Acid Soluble Molybdenum , AA, test portion in 200... (125ppm)	1		140.0									
289.30	Acid Soluble Molybdenum , ICP (125ppm)	9	7	118.1	30.14	125.6	38.2091	11.84	3.164	9.43%	15.21%	9.390	7.73%
289.32	Acid Soluble Molybdenum , ICP, 2006.03 (125ppm)	1		114.0									
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modified w... (125ppm)	3	2	111.4	53.67	111.4	38.2091	53.67	26.83	48.18%	17.15%	20.16	7.87%
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010C ... (125ppm)	1		104.1									
289.99	Acid Soluble Molybdenum , Other (125ppm)	2	1	149.5									
291.00	Acid Soluble Nickel , AA, test portion as in 2006... (ppm)	1		6.050									
291.30	Acid Soluble Nickel , ICP (ppm)	4	4	0.7675	0.4984	0.7675		0.4984	0.1762	64.94%		0.1615	16.65%
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w/9:3... (ppm)	2	1	22.65									
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	1		0.4857									
291.99	Acid Soluble Nickel , Other (ppm)	2	1	1.050									
301.30	Acid Soluble Selenium , ICP (ppm)	2	2	0.1145	0.0347								
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		0.0700									
311.30	Sodium, Flame Photometric (%)	1		0.2850									
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl test ... (%)	2	2	0.2478	0.0244								
311.99	Sodium, Other (%)	4	4	0.2719	0.0462	0.2719		0.0461	0.0163	16.97%		0.0258	4.87%
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	11	10	0.0983	0.0522	0.0769	0.0124	0.0086	0.0019	11.23%	8.04%	0.0057	5.88%
321.03	Acid Soluble Zinc , AA, 965.09, test portion 2006... (0.063%)	2	2	0.0736	0.0048								
321.30	Acid Soluble Zinc , ICP, test portion inorganic 9... (0.063%)	27	25	0.0746	0.0105	0.0735	0.0124	0.0052	0.0007	7.01%	8.42%	0.0027	5.93%
321.32	Acid Soluble Zinc , ICP, test portion 2006.03A-C ... (0.063%)	2	2	0.0675	0.0078								
321.33	Acid Soluble Zinc , ICP, test portion 2006.03A-C,... (0.063%)	7	7	0.0980	0.0658	0.0760	0.0124	0.0089	0.0024	11.65%	8.14%	0.0030	5.89%
321.99	Acid Soluble Zinc , Other (0.063%)	8	8	0.0712	0.0124	0.0712	0.0124	0.0141	0.0035	19.80%	8.68%	0.0051	5.95%
325.30	Water Soluble Zinc , ICP (%)	1		0.0690									

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check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 150811

Grade 25-5-15

Method Precision Report

Issue Date : 09/30/2015

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 (%)	8	6	10.18	0.4820	0.4802	0.0597	0.4839	4.72%	0.59%	4.76%	8.102
001.99	Ammoniacal Nitrogen, Other (%)	12	10	10.03	0.2623	0.2543	0.0904	0.2699	2.54%	0.90%	2.69%	2.985
002.99	Nitrate Nitrogen, Other (%)	10	9	13.85	1.074	1.073	0.0700	1.076	7.75%	0.51%	7.76%	15.37
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	7	7	20.18	5.967	5.966	0.1242	5.967	29.56%	0.62%	29.57%	48.04
010.60	Total Nitrogen, Combustion (25%)	52	49	23.58	1.075	1.058	0.2688	1.092	4.49%	1.14%	4.63%	4.063
020.10	Total Phosphorus as P2O5, Gravimetric Quinolinium MolybdoP (%)	9	8	5.875	0.1096	0.0943	0.0790	0.1230	1.60%	1.35%	2.09%	1.557
020.20	Total Phosphorus as P2O5, Spectrophotometric MolybdovanadoP (%)	20	18	5.651	0.6634	0.6609	0.0820	0.6660	11.70%	1.45%	11.79%	8.122
020.40	Total Phosphorus as P2O5, Automated (%)	6	6	5.765	0.2130	0.1318	0.2367	0.2709	2.29%	4.11%	4.70%	1.145
020.50	Total Phosphorus as P2O5, ICP (%)	12	10	5.695	0.3301	0.2903	0.2225	0.3657	5.10%	3.91%	6.42%	1.644
041.60	Direct Available Phosphorus as P2O5, Citrate-EDTA Ext. (5%)	9	7	5.806	0.2868	0.2846	0.0501	0.2890	4.90%	0.86%	4.98%	5.765
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	12	11	15.23	0.5388	0.5229	0.1842	0.5544	3.43%	1.21%	3.64%	3.009
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	6	5	15.03	2.298	2.294	0.2020	2.303	15.26%	1.34%	15.32%	11.40
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	9	9	14.56	0.8299	0.7875	0.3701	0.8702	5.41%	2.54%	5.98%	2.351
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	9	7	15.01	0.3661	0.3546	0.1290	0.3773	2.36%	0.86%	2.51%	2.925
050.60	Soluble Potassium as K2O, Flame Photometric (Oxalate) (15%)	7	7	15.20	0.7593	0.7437	0.2161	0.7745	4.89%	1.42%	5.09%	3.584
050.99	Soluble Potassium as K2O, Other (15%)	23	21	14.90	1.314	1.307	0.1949	1.321	8.77%	1.31%	8.87%	6.780
101.30	Acid Soluble Calcium, ICP, test portion inorganic 965.09 (%)	9	9	0.0310	0.0198	0.0153	0.0178	0.0234	49.25%	57.30%	75.56%	1.319
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (0.1%)	9	8	0.3502	0.0186	0.0162	0.0128	0.0207	4.64%	3.66%	5.91%	1.615
121.30	Acid Soluble Magnesium, ICP, test portion inorganic 965.09 (0.1%)	25	23	0.3676	0.0311	0.0296	0.0137	0.0326	8.05%	3.73%	8.87%	2.380
121.33	Acid Soluble Magnesium, ICP, test portion 2006.03A-C, w/dual acid (0.1%)	7	6	0.3588	0.0232	0.0223	0.0089	0.0240	6.21%	2.48%	6.69%	2.691
121.99	Acid Soluble Magnesium, Other (0.1%)	6	5	0.3534	0.0200	0.0059	0.0270	0.0276	1.66%	7.64%	7.82%	1.023
131.30	Water Soluble Magnesium, ICP (%)	7	5	0.3765	0.0111	0.0086	0.0100	0.0132	2.27%	2.67%	3.51%	1.314
148.01	Total Sulfur, Gravimetric - sulfate and elemental (0.13%)	8	6	0.1432	0.1312	0.1311	0.0072	0.1313	91.55%	5.01%	91.68%	18.32
148.07	Total Sulfur, ICP, test portion as in 2006.03 modified w/9:3 HNO3:HCl (0.13%)	9	9	0.3165	0.0633	0.0602	0.0279	0.0663	19.02%	8.81%	20.96%	2.380
148.99	Total Sulfur, Other (0.13%)	10	10	0.2864	0.0790	0.0786	0.0123	0.0795	27.43%	4.29%	27.76%	6.469
165.00	Acid Soluble Boron , Spectrophotometric (0.025%)	8	7	0.0302	0.0062	0.0058	0.0031	0.0066	19.26%	10.11%	21.76%	2.152
165.30	Acid Soluble Boron , ICP, test portion in 982.01 (0.025%)	15	14	0.0304	0.0037	0.0035	0.0018	0.0039	11.57%	5.87%	12.97%	2.212
165.99	Acid Soluble Boron , Other (0.025%)	14	12	0.0295	0.0036	0.0035	0.0011	0.0037	11.90%	3.66%	12.45%	3.398
191.30	Acid Soluble Chromium , ICP (ppm)	8	8	1.490	0.9731	0.9689	0.1278	0.9773	65.02%	8.58%	65.58%	7.646
202.30	Acid Soluble Cobalt , ICP (ppm)	8	8	17.74	2.221	2.199	0.4392	2.243	12.40%	2.48%	12.64%	5.106

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
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.0125%)	8	6	0.0138	0.0027	0.0027	0.0002	0.0027	19.77%	1.81%	19.85%	10.99
221.30	Acid Soluble Copper , ICP, test portion inorganic 965.09 (0.0125%)	23	21	0.0157	0.0029	0.0029	0.0005	0.0029	18.39%	3.18%	18.66%	5.861
221.33	Acid Soluble Copper , ICP, test portion 2006.03A-C, w/dual acid (0.0125%)	7	6	0.0141	0.0018	0.0018	0.0002	0.0018	12.76%	1.49%	12.85%	8.613
221.99	Acid Soluble Copper , Other (0.0125%)	9	8	0.0148	0.0027	0.0027	0.0005	0.0027	18.16%	3.15%	18.43%	5.857
241.00	Acid Soluble Iron , AA, inorganic 965.09 (0.125%)	9	7	0.1219	0.0113	0.0111	0.0029	0.0115	9.14%	2.39%	9.45%	3.957
241.30	Acid Soluble Iron , ICP, test portion inorganic 965.09 (0.125%)	26	23	0.1335	0.0150	0.0147	0.0042	0.0153	11.03%	3.13%	11.46%	3.664
241.33	Acid Soluble Iron , ICP, test portion 2006.03A-C, w/dual acid (0.125%)	7	7	0.1182	0.0226	0.0224	0.0037	0.0227	18.96%	3.16%	19.22%	6.075
241.99	Acid Soluble Iron , Other (0.125%)	7	7	0.1223	0.0198	0.0185	0.0100	0.0210	15.09%	8.20%	17.18%	2.094
251.30	Acid Soluble Lead , ICP (ppm)	7	7	2.486	0.7357	0.7311	0.1168	0.7404	29.40%	4.70%	29.78%	6.336
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (0.063%)	6	6	0.0668	0.0048	0.0046	0.0018	0.0049	6.90%	2.65%	7.39%	2.792
261.30	Acid Soluble Manganese , ICP, test portion 972.02a (0.063%)	18	16	0.0647	0.0049	0.0047	0.0021	0.0051	7.26%	3.24%	7.95%	2.455
261.35	Acid Soluble Manganese , ICP, test portion 2006.03A-C, w/dual acid (0.063%)	6	5	0.0646	0.0024	0.0023	0.0011	0.0026	3.59%	1.68%	3.96%	2.358
261.99	Acid Soluble Manganese , Other (0.063%)	8	8	0.0607	0.0091	0.0087	0.0042	0.0096	14.26%	6.87%	15.83%	2.303
289.30	Acid Soluble Molybdenum , ICP (125ppm)	9	6	128.7	12.23	10.87	7.901	13.44	8.45%	6.14%	10.44%	1.701
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	11	9	0.0855	0.0347	0.0346	0.0032	0.0347	40.47%	3.75%	40.64%	10.84
321.30	Acid Soluble Zinc , ICP, test portion inorganic 965.09 (0.063%)	27	24	0.0732	0.0077	0.0074	0.0029	0.0079	10.10%	3.98%	10.85%	2.731
321.33	Acid Soluble Zinc , ICP, test portion 2006.03A-C, w/dual acid (0.063%)	7	6	0.0735	0.0127	0.0127	0.0018	0.0128	17.22%	2.45%	17.40%	7.110
321.99	Acid Soluble Zinc , Other (0.063%)	8	8	0.0712	0.0124	0.0120	0.0046	0.0128	16.86%	6.41%	18.04%	2.812

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Methods: 150

Sample # 150811

Lab Values

Labs Reporting: 87

Grade 25-5-15

Issue Date : 09/30/2015

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 (%)	0456	9.345	0.1700	10.28	0.3522	0.1651	8	-2.65	5%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0481	10.06	0.0900	10.28	0.3522	0.1651	8	-0.63	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0177	10.09	0.0011	10.28	0.3522	0.1651	8	-0.52	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0444	10.13	0.6300	10.28	0.3522	0.1651	8	-0.43	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0090	10.35	0.0000	10.28	0.3522	0.1651	8	0.21	0%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0405	10.45	0.0700	10.28	0.3522	0.1651	8	0.48	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0513	10.77	0.0300	10.28	0.3522	0.1651	8	1.39	2%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0486	15.08	0.3300	10.28	0.3522	0.1651	8	13.63	23%	0
001.99	Ammoniacal Nitrogen, Other (%)	0500	9.720	0.0000	10.08	0.3417	0.0963	11	-1.04	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0200	9.760	0.0800	10.08	0.3417	0.0963	11	-0.93	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0487	9.800	0.0000	10.08	0.3417	0.0963	11	-0.81	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0420	9.840	0.1200	10.08	0.3417	0.0963	11	-0.69	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0027	9.855	0.2750	10.08	0.3417	0.0963	11	-0.65	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0397	10.06	0.2140	10.08	0.3417	0.0963	11	-0.04	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0510	10.18	0.0400	10.08	0.3417	0.0963	11	0.30	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0220	10.28	0.0900	10.08	0.3417	0.0963	11	0.58	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0394	10.35	0.1000	10.08	0.3417	0.0963	11	0.80	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0096	10.41	0.0400	10.08	0.3417	0.0963	11	0.98	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0506	11.75	0.1000	10.08	0.3417	0.0963	11	4.90	8%	0
001.99	Ammoniacal Nitrogen, Other (%)	0117	9.985	0.6300	10.08	0.3417	0.0963	11	-0.27	0%	1
002.20	Nitrate Nitrogen, Jones Modified (%)	0029	13.05	0.0400	15.10	2.899	0.2700	2	-0.71	7%	0
002.20	Nitrate Nitrogen, Jones Modified (%)	0117	17.15	0.5000	15.10	2.899	0.2700	2	0.71	7%	0
002.99	Nitrate Nitrogen, Other (%)	0500	12.28	0.0000	13.84	1.192	0.0732	9	-1.31	6%	0
002.99	Nitrate Nitrogen, Other (%)	0029	13.07	0.1200	13.84	1.192	0.0732	9	-0.65	3%	0
002.99	Nitrate Nitrogen, Other (%)	0513	13.09	0.0900	13.84	1.192	0.0732	9	-0.63	3%	0
002.99	Nitrate Nitrogen, Other (%)	0027	13.19	0.0590	13.84	1.192	0.0732	9	-0.54	2%	0
002.99	Nitrate Nitrogen, Other (%)	0486	13.90	0.1400	13.84	1.192	0.0732	9	0.05	0%	0
002.99	Nitrate Nitrogen, Other (%)	0394	14.10	0.0000	13.84	1.192	0.0732	9	0.22	1%	0
002.99	Nitrate Nitrogen, Other (%)	0200	14.30	0.0000	13.84	1.192	0.0732	9	0.39	2%	0
002.99	Nitrate Nitrogen, Other (%)	0506	15.00	0.2000	13.84	1.192	0.0732	9	0.97	4%	0
002.99	Nitrate Nitrogen, Other (%)	0420	15.74	0.0500	13.84	1.192	0.0732	9	1.59	7%	0
002.99	Nitrate Nitrogen, Other (%)	0231	14.34	0.6600	13.84	1.192	0.0732	9	0.42	2%	1
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0309	10.39	0.3800	23.25	0.9858	0.1371	7	-13.05	28%	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				
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0481	12.70	0.1300	23.25	0.9858	0.1371	7	-10.71	23%	0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0444	22.47	0.1700	23.25	0.9858	0.1371	7	-0.80	2%	0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0397	23.57	0.0100	23.25	0.9858	0.1371	7	0.32	1%	0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0169	23.97	0.0700	23.25	0.9858	0.1371	7	0.72	2%	0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0200	24.06	0.0800	23.25	0.9858	0.1371	7	0.82	2%	0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0090	24.14	0.1200	23.25	0.9858	0.1371	7	0.90	2%	0
009.99	Ammoniacal Plus Nitrate Nitrogen, Other (%)	0169	10.14	0.0600			0.0600	1			0
010.11	Total Nitrogen, Modified Comprehensive (25%)	0510	18.83*	0.1200	22.77	2.425	0.1540	5	-1.62	9%	0
010.11	Total Nitrogen, Modified Comprehensive (25%)	0500	22.00*	0.0000	22.77	2.425	0.1540	5	-0.32	2%	0
010.11	Total Nitrogen, Modified Comprehensive (25%)	0105	24.32	0.0900	22.77	2.425	0.1540	5	0.64	3%	0
010.11	Total Nitrogen, Modified Comprehensive (25%)	0309	24.35	0.4300	22.77	2.425	0.1540	5	0.65	3%	0
010.11	Total Nitrogen, Modified Comprehensive (25%)	0211	24.37	0.1300	22.77	2.425	0.1540	5	0.66	4%	0
010.12	Total Nitrogen, Salicylic (25%)	0416	23.18	0.8000	23.93	0.6213	0.3180	5	-1.20	2%	0
010.12	Total Nitrogen, Salicylic (25%)	0397	23.75	0.3900	23.93	0.6213	0.3180	5	-0.29	0%	0
010.12	Total Nitrogen, Salicylic (25%)	0117	23.85	0.1000	23.93	0.6213	0.3180	5	-0.12	0%	0
010.12	Total Nitrogen, Salicylic (25%)	0455	23.95	0.1000	23.93	0.6213	0.3180	5	0.04	0%	0
010.12	Total Nitrogen, Salicylic (25%)	0498	24.90	0.2000	23.93	0.6213	0.3180	5	1.57	2%	0
010.60	Total Nitrogen, Combustion (25%)	0230	18.70*	0.4000	23.56	1.110	0.2830	51	-4.38	10%	0
010.60	Total Nitrogen, Combustion (25%)	0307	19.38*	0.4380	23.56	1.110	0.2830	51	-3.77	9%	0
010.60	Total Nitrogen, Combustion (25%)	0117	20.50*	0.8000	23.56	1.110	0.2830	51	-2.76	6%	0
010.60	Total Nitrogen, Combustion (25%)	0516	21.35*	0.3000	23.56	1.110	0.2830	51	-1.99	5%	0
010.60	Total Nitrogen, Combustion (25%)	0035	21.42*	0.3200	23.56	1.110	0.2830	51	-1.93	5%	0
010.60	Total Nitrogen, Combustion (25%)	0356	22.14*	0.5500	23.56	1.110	0.2830	51	-1.28	3%	0
010.60	Total Nitrogen, Combustion (25%)	0389	22.15*	0.7000	23.56	1.110	0.2830	51	-1.27	3%	0
010.60	Total Nitrogen, Combustion (25%)	0234	22.26*	0.3100	23.56	1.110	0.2830	51	-1.17	3%	0
010.60	Total Nitrogen, Combustion (25%)	0042	22.35*	0.1000	23.56	1.110	0.2830	51	-1.09	3%	0
010.60	Total Nitrogen, Combustion (25%)	0324	22.40*	0.2000	23.56	1.110	0.2830	51	-1.04	2%	0
010.60	Total Nitrogen, Combustion (25%)	0472	22.41*	0.0200	23.56	1.110	0.2830	51	-1.03	2%	0
010.60	Total Nitrogen, Combustion (25%)	0451	22.61*	0.3100	23.56	1.110	0.2830	51	-0.86	2%	0
010.60	Total Nitrogen, Combustion (25%)	0481	22.83*	0.2200	23.56	1.110	0.2830	51	-0.66	2%	0
010.60	Total Nitrogen, Combustion (25%)	0025	22.89*	0.0900	23.56	1.110	0.2830	51	-0.61	1%	0
010.60	Total Nitrogen, Combustion (25%)	0102	23.00	0.7700	23.56	1.110	0.2830	51	-0.51	1%	0
010.60	Total Nitrogen, Combustion (25%)	0157	23.00	0.4000	23.56	1.110	0.2830	51	-0.50	1%	0
010.60	Total Nitrogen, Combustion (25%)	0406	23.08	0.0400	23.56	1.110	0.2830	51	-0.43	1%	0
010.60	Total Nitrogen, Combustion (25%)	0292	23.23	0.1400	23.56	1.110	0.2830	51	-0.30	1%	0
010.60	Total Nitrogen, Combustion (25%)	0162	23.26	0.2500	23.56	1.110	0.2830	51	-0.27	1%	0
010.60	Total Nitrogen, Combustion (25%)	0402	23.38	0.0580	23.56	1.110	0.2830	51	-0.16	0%	0
010.60	Total Nitrogen, Combustion (25%)	0482	23.40	0.6000	23.56	1.110	0.2830	51	-0.14	0%	0
010.60	Total Nitrogen, Combustion (25%)	0444	23.41	0.3100	23.56	1.110	0.2830	51	-0.14	0%	0
010.60	Total Nitrogen, Combustion (25%)	0377	23.42	0.0800	23.56	1.110	0.2830	51	-0.13	0%	0
010.60	Total Nitrogen, Combustion (25%)	0043	23.46	0.0700	23.56	1.110	0.2830	51	-0.09	0%	0
010.60	Total Nitrogen, Combustion (25%)	0231	23.56	0.0900	23.56	1.110	0.2830	51	0.00	0%	0
010.60	Total Nitrogen, Combustion (25%)	0073	23.57	0.9000	23.56	1.110	0.2830	51	0.01	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 (25%)	0029	23.82	0.7000	23.56	1.110	0.2830	51	0.24	1%	0
010.60	Total Nitrogen, Combustion (25%)	0233	23.90	0.0200	23.56	1.110	0.2830	51	0.31	1%	0
010.60	Total Nitrogen, Combustion (25%)	0049	23.91	0.0000	23.56	1.110	0.2830	51	0.32	1%	0
010.60	Total Nitrogen, Combustion (25%)	0041	23.92	0.3200	23.56	1.110	0.2830	51	0.33	1%	0
010.60	Total Nitrogen, Combustion (25%)	0291	24.01	0.0100	23.56	1.110	0.2830	51	0.40	1%	0
010.60	Total Nitrogen, Combustion (25%)	0177	24.12	0.1700	23.56	1.110	0.2830	51	0.50	1%	0
010.60	Total Nitrogen, Combustion (25%)	0007	24.15	0.7000	23.56	1.110	0.2830	51	0.53	1%	0
010.60	Total Nitrogen, Combustion (25%)	0055	24.16	0.0500	23.56	1.110	0.2830	51	0.54	1%	0
010.60	Total Nitrogen, Combustion (25%)	0105	24.16	0.0190	23.56	1.110	0.2830	51	0.54	1%	0
010.60	Total Nitrogen, Combustion (25%)	0040	24.25	0.1000	23.56	1.110	0.2830	51	0.62	1%	0
010.60	Total Nitrogen, Combustion (25%)	0325	24.25	0.3000	23.56	1.110	0.2830	51	0.62	1%	0
010.60	Total Nitrogen, Combustion (25%)	0452	24.25	0.0200	23.56	1.110	0.2830	51	0.62	1%	0
010.60	Total Nitrogen, Combustion (25%)	0390	24.30	0.2000	23.56	1.110	0.2830	51	0.67	2%	0
010.60	Total Nitrogen, Combustion (25%)	0136	24.37	0.1700	23.56	1.110	0.2830	51	0.73	2%	0
010.60	Total Nitrogen, Combustion (25%)	0360	24.38	0.3500	23.56	1.110	0.2830	51	0.74	2%	0
010.60	Total Nitrogen, Combustion (25%)	0095	24.39	0.6600	23.56	1.110	0.2830	51	0.75	2%	0
010.60	Total Nitrogen, Combustion (25%)	0494	24.43	0.0100	23.56	1.110	0.2830	51	0.78	2%	0
010.60	Total Nitrogen, Combustion (25%)	0023	24.45	0.1110	23.56	1.110	0.2830	51	0.81	2%	0
010.60	Total Nitrogen, Combustion (25%)	0394	24.61	0.1500	23.56	1.110	0.2830	51	0.94	2%	0
010.60	Total Nitrogen, Combustion (25%)	0096	24.66	0.0200	23.56	1.110	0.2830	51	0.99	2%	0
010.60	Total Nitrogen, Combustion (25%)	0443	24.80	0.5800	23.56	1.110	0.2830	51	1.12	3%	0
010.60	Total Nitrogen, Combustion (25%)	0485	25.18	0.8400	23.56	1.110	0.2830	51	1.46	3%	0
010.60	Total Nitrogen, Combustion (25%)	0354	25.18	0.2580	23.56	1.110	0.2830	51	1.46	3%	0
010.60	Total Nitrogen, Combustion (25%)	0275	25.22	0.0000	23.56	1.110	0.2830	51	1.50	4%	0
010.60	Total Nitrogen, Combustion (25%)	0034	25.66	0.2100	23.56	1.110	0.2830	51	1.89	4%	0
010.60	Total Nitrogen, Combustion (25%)	0483	19.04*	1.230	23.56	1.110	0.2830	51	-4.08	10%	1
010.99	Total Nitrogen, Other (25%)	0394	23.30	1.400	24.41	1.324	0.5160	5	-0.84	2%	0
010.99	Total Nitrogen, Other (25%)	0513	23.85	0.0600	24.41	1.324	0.5160	5	-0.42	1%	0
010.99	Total Nitrogen, Other (25%)	0220	24.00	0.5700	24.41	1.324	0.5160	5	-0.31	1%	0
010.99	Total Nitrogen, Other (25%)	0300	24.19	0.5500	24.41	1.324	0.5160	5	-0.17	0%	0
010.99	Total Nitrogen, Other (25%)	0506	26.70	0.0000	24.41	1.324	0.5160	5	1.73	5%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0055	5.765	0.1900	5.868	0.1098	0.0890	8	-0.94	1%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0105	5.780	0.0800	5.868	0.1098	0.0890	8	-0.80	1%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0444	5.785	0.1700	5.868	0.1098	0.0890	8	-0.75	1%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0500	5.850	0.0000	5.868	0.1098	0.0890	8	-0.16	0%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0090	5.860	0.1400	5.868	0.1098	0.0890	8	-0.07	0%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0211	5.885	0.0500	5.868	0.1098	0.0890	8	0.16	0%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0322	6.001	0.0020	5.868	0.1098	0.0890	8	1.21	1%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0049	6.070	0.0800	5.868	0.1098	0.0890	8	1.84	2%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0157	5.580	0.6200	5.868	0.1098	0.0890	8	-2.62	2%	1
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0506	3.180	0.3000	5.774	0.1927	0.1012	19	-13.46	22%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0457	5.280	0.0600	5.774	0.1927	0.1012	19	-2.56	4%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0300	5.545	0.0700	5.774	0.1927	0.1012	19	-1.19	2%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
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020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0169	5.630	0.0800	5.774	0.1927	0.1012	19	-0.75	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0055	5.660	0.0200	5.774	0.1927	0.1012	19	-0.59	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0420	5.670	0.1200	5.774	0.1927	0.1012	19	-0.54	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0394	5.700	0.0000	5.774	0.1927	0.1012	19	-0.38	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0416	5.705	0.2500	5.774	0.1927	0.1012	19	-0.36	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0324	5.730	0.0000	5.774	0.1927	0.1012	19	-0.23	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0177	5.766	0.0079	5.774	0.1927	0.1012	19	-0.04	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0481	5.805	0.0700	5.774	0.1927	0.1012	19	0.16	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0516	5.810	0.0200	5.774	0.1927	0.1012	19	0.19	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0405	5.855	0.0900	5.774	0.1927	0.1012	19	0.42	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0510	5.885	0.0300	5.774	0.1927	0.1012	19	0.58	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0406	5.905	0.0100	5.774	0.1927	0.1012	19	0.68	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0231	5.940	0.0200	5.774	0.1927	0.1012	19	0.86	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0356	6.315	0.0300	5.774	0.1927	0.1012	19	2.81	5%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0309	6.335	0.2100	5.774	0.1927	0.1012	19	2.91	5%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0428	11.26	0.5352	5.774	0.1927	0.1012	19	28.46	47%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0292	6.435	0.7300	5.774	0.1927	0.1012	19	3.43	6%	1
020.40	Total Phosphorus as P2O5, Automated (%)	0096	5.530	0.1000	5.761	0.2332	0.2400	6	-0.99	2%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0035	5.610	0.5800	5.761	0.2332	0.2400	6	-0.65	1%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0042	5.615	0.5500	5.761	0.2332	0.2400	6	-0.63	1%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0500	5.860	0.0000	5.761	0.2332	0.2400	6	0.43	1%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0105	5.895	0.1300	5.761	0.2332	0.2400	6	0.58	1%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0456	6.080	0.0800	5.761	0.2332	0.2400	6	1.37	3%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0157	5.320	0.7400	5.705	0.3158	0.2349	11	-1.22	3%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0472	5.355	0.0700	5.705	0.3158	0.2349	11	-1.11	3%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0389	5.475	0.0300	5.705	0.3158	0.2349	11	-0.73	2%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0402	5.605	0.0100	5.705	0.3158	0.2349	11	-0.32	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0444	5.625	0.1300	5.705	0.3158	0.2349	11	-0.25	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0307	5.653	0.3740	5.705	0.3158	0.2349	11	-0.16	0%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0451	5.690	0.2400	5.705	0.3158	0.2349	11	-0.05	0%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0482	5.870	0.0000	5.705	0.3158	0.2349	11	0.52	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0390	5.890	0.1400	5.705	0.3158	0.2349	11	0.59	2%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0234	6.465	0.4500	5.705	0.3158	0.2349	11	2.41	7%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0371	6.900	0.4000	5.705	0.3158	0.2349	11	3.78	10%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0483	7.795	1.970	5.705	0.3158	0.2349	11	6.62	18%	1
020.99	Total Phosphorus as P2O5, Other (%)	0455	5.200	0.0200	6.048	0.6827	0.3575	4	-1.24	7%	0
020.99	Total Phosphorus as P2O5, Other (%)	0515	5.863	0.5498	6.048	0.6827	0.3575	4	-0.27	2%	0
020.99	Total Phosphorus as P2O5, Other (%)	0443	6.330	0.6600	6.048	0.6827	0.3575	4	0.41	2%	0
020.99	Total Phosphorus as P2O5, Other (%)	0487	6.800	0.2000	6.048	0.6827	0.3575	4	1.10	6%	0
040.20	Indirect Available Phosphorus as P2O5, Spectr... (5%)	0513	5.500	0.1200	5.635	0.1922	0.0700	3	-0.70	1%	0
040.20	Indirect Available Phosphorus as P2O5, Spectr... (5%)	0300	5.550	0.0000	5.635	0.1922	0.0700	3	-0.44	1%	0
040.20	Indirect Available Phosphorus as P2O5, Spectr... (5%)	0405	5.855	0.0900	5.635	0.1922	0.0700	3	1.14	2%	0
040.40	Indirect Available Phosphorus as P2O5, Automa... (5%)	0096	5.515	0.0900			0.0900	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				
041.10	Direct Available Phosphorus as P2O5, Gravimet... (5%)	0493	5.650	0.1000	5.881	0.1725	0.1975	4	-1.34	2%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (5%)	0040	5.850	0.1000	5.881	0.1725	0.1975	4	-0.18	0%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (5%)	0102	6.000	0.0000	5.881	0.1725	0.1975	4	0.69	1%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (5%)	0105	6.025	0.5900	5.881	0.1725	0.1975	4	0.83	1%	0
041.11	Direct Available Phosphorus as P2O5, Gravimet... (5%)	0485	5.725	0.1100	6.000	0.2475	0.2200	3	-1.11	2%	0
041.11	Direct Available Phosphorus as P2O5, Gravimet... (5%)	0185	6.070	0.1000	6.000	0.2475	0.2200	3	0.28	1%	0
041.11	Direct Available Phosphorus as P2O5, Gravimet... (5%)	0105	6.205	0.4500	6.000	0.2475	0.2200	3	0.83	2%	0
041.20	Direct Available Phosphorus as P2O5, Spectrop... (5%)	0498	4.850*	0.1000			0.1000	1			0
041.21	Direct Available Phosphorus as P2O5, Spectrop... (5%)	0200	5.720	0.0200	5.893	0.2440	0.2150	2	-0.71	1%	0
041.21	Direct Available Phosphorus as P2O5, Spectrop... (5%)	0105	6.065	0.4100	5.893	0.2440	0.2150	2	0.71	1%	0
041.31	Direct Available Phosphorus as P2O5, Alkalime... (5%)	0220	5.620	0.0000			0.0000	1			0
041.40	Direct Available Phosphorus as P2O5, Automate... (5%)	0027	5.725	0.0100	5.875	0.2121	0.2000	2	-0.71	1%	0
041.40	Direct Available Phosphorus as P2O5, Automate... (5%)	0095	6.025	0.3900	5.875	0.2121	0.2000	2	0.71	1%	0
041.50	Direct Available Phosphorus as P2O5, ICP (5%)	0325	5.210	0.1400	5.741	0.4965	0.1725	4	-1.07	5%	0
041.50	Direct Available Phosphorus as P2O5, ICP (5%)	0007	5.550	0.3000	5.741	0.4965	0.1725	4	-0.39	2%	0
041.50	Direct Available Phosphorus as P2O5, ICP (5%)	0043	5.820	0.2400	5.741	0.4965	0.1725	4	0.16	1%	0
041.50	Direct Available Phosphorus as P2O5, ICP (5%)	0452	6.385	0.0100	5.741	0.4965	0.1725	4	1.30	6%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (5%)	0025	5.595	0.1100	5.781	0.1433	0.1540	5	-1.30	2%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (5%)	0131	5.730	0.1400	5.781	0.1433	0.1540	5	-0.36	0%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (5%)	0377	5.735	0.0300	5.781	0.1433	0.1540	5	-0.32	0%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (5%)	0023	5.885	0.1700	5.781	0.1433	0.1540	5	0.73	1%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (5%)	0360	5.960	0.3200	5.781	0.1433	0.1540	5	1.25	2%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (5%)	0513	5.315	0.0300	5.776	0.2082	0.0898	8	-2.21	4%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (5%)	0397	5.545	0.2650	5.776	0.2082	0.0898	8	-1.11	2%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (5%)	0029	5.670	0.0600	5.776	0.2082	0.0898	8	-0.51	1%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (5%)	0472	5.795	0.0500	5.776	0.2082	0.0898	8	0.09	0%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (5%)	0034	5.816	0.1236	5.776	0.2082	0.0898	8	0.19	0%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (5%)	0136	5.860	0.0800	5.776	0.2082	0.0898	8	0.40	1%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (5%)	0043	5.910	0.0400	5.776	0.2082	0.0898	8	0.64	1%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (5%)	0231	6.275	0.0700	5.776	0.2082	0.0898	8	2.40	4%	0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (5%)	0354	6.226	0.7420	5.776	0.2082	0.0898	8	2.16	4%	1
041.99	Direct Available Phosphorus as P2O5, Other (5%)	0105	6.080	0.6400	9.390	4.681	0.4200	2	-0.71	18%	0
041.99	Direct Available Phosphorus as P2O5, Other (5%)	0230	12.70	0.2000	9.390	4.681	0.4200	2	0.71	18%	0
048.10	Water Soluble Phosphorus as P2O5, Gravimetric... (%)	0444	5.910	0.0200			0.0200	1			0
048.20	Water Soluble Phosphorus as P2O5, Spectrophot... (%)	0394	5.600	0.0000	5.605	0.0071	0.0800	2	-0.71	0%	0
048.20	Water Soluble Phosphorus as P2O5, Spectrophot... (%)	0420	5.610	0.1600	5.605	0.0071	0.0800	2	0.71	0%	0
048.40	Water Soluble Phosphorus as P2O5, Automated (%)	0096	5.535	0.1700			0.1700	1			0
048.50	Water Soluble Phosphorus as P2O5, ICP (%)	0444	5.890	0.0000			0.0000	1			0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0230	14.20	0.8000	15.20	0.5261	0.2075	12	-1.90	3%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0102	14.70	0.0000	15.20	0.5261	0.2075	12	-0.95	2%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0494	14.83	0.9200	15.20	0.5261	0.2075	12	-0.70	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0090	15.01	0.0900	15.20	0.5261	0.2075	12	-0.37	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0405	15.02	0.0500	15.20	0.5261	0.2075	12	-0.35	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				
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0220	15.02	0.0200	15.20	0.5261	0.2075	12	-0.34	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0416	15.06	0.2100	15.20	0.5261	0.2075	12	-0.27	0%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0055	15.40	0.0200	15.20	0.5261	0.2075	12	0.38	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0231	15.60	0.0500	15.20	0.5261	0.2075	12	0.75	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0211	15.73	0.0700	15.20	0.5261	0.2075	12	1.00	2%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0049	15.89	0.2000	15.20	0.5261	0.2075	12	1.31	2%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0114	15.97	0.0600	15.20	0.5261	0.2075	12	1.47	3%	0
050.10	Soluble Potassium as K2O, STPB Citrate (15%)	0322	15.08	0.0140			0.0140	1			0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0516	12.15*	0.1300	15.01	1.059	0.3950	6	-2.71	10%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0500	14.10*	0.2000	15.01	1.059	0.3950	6	-0.86	3%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0040	15.15	0.3000	15.01	1.059	0.3950	6	0.13	0%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0157	15.20	1.200	15.01	1.059	0.3950	6	0.18	1%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0136	15.27	0.0300	15.01	1.059	0.3950	6	0.24	1%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0356	18.48	0.5100	15.01	1.059	0.3950	6	3.27	12%	0
050.31	Soluble Potassium as K2O, AA (Citrate) (15%)	0472	13.70*	0.1700	14.64	1.333	0.0950	2	-0.71	3%	0
050.31	Soluble Potassium as K2O, AA (Citrate) (15%)	0291	15.58	0.0200	14.64	1.333	0.0950	2	0.71	3%	0
050.32	Soluble Potassium as K2O, AA (Citrate-EDTA) (15%)	0185	14.42	0.2100			0.2100	1			0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0117	13.00*	0.6000	14.64	0.7790	0.4038	9	-2.10	6%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0292	13.79*	0.0300	14.64	0.7790	0.4038	9	-1.09	3%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0390	14.15*	1.100	14.64	0.7790	0.4038	9	-0.63	2%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0420	14.30	0.4840	14.64	0.7790	0.4038	9	-0.43	1%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0157	14.80	0.6000	14.64	0.7790	0.4038	9	0.21	1%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0055	14.91	0.0400	14.64	0.7790	0.4038	9	0.35	1%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0444	15.22	0.2100	14.64	0.7790	0.4038	9	0.74	2%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0324	15.25	0.5000	14.64	0.7790	0.4038	9	0.79	2%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0406	15.64	0.0700	14.64	0.7790	0.4038	9	1.28	3%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (15%)	0291	5.865*	0.0100	14.66	5.551	0.1860	5	-1.59	30%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (15%)	0007	14.90	0.4000	14.66	5.551	0.1860	5	0.04	1%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (15%)	0043	15.24	0.1400	14.66	5.551	0.1860	5	0.10	2%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (15%)	0452	16.05	0.0200	14.66	5.551	0.1860	5	0.25	5%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (15%)	0483	21.26	0.3600	14.66	5.551	0.1860	5	1.19	22%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0117	13.80*	1.400	14.90	0.4313	0.3070	8	-2.55	4%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0485	14.57	0.1800	14.90	0.4313	0.3070	8	-0.77	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0486	14.72	0.1300	14.90	0.4313	0.3070	8	-0.43	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0360	14.83	0.0200	14.90	0.4313	0.3070	8	-0.16	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0131	14.94	0.1300	14.90	0.4313	0.3070	8	0.08	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0377	15.09	0.2800	14.90	0.4313	0.3070	8	0.44	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0354	15.30	0.2960	14.90	0.4313	0.3070	8	0.92	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0023	15.64	0.0200	14.90	0.4313	0.3070	8	1.72	2%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0025	14.05*	2.500	14.90	0.4313	0.3070	8	-1.97	3%	1
050.60	Soluble Potassium as K2O, Flame Photometric ... (15%)	0309	13.78*	0.1800	15.23	0.2764	0.2000	7	-5.24	5%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (15%)	0041	15.04	0.0000	15.23	0.2764	0.2000	7	-0.68	1%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (15%)	0169	15.18	0.0700	15.23	0.2764	0.2000	7	-0.19	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				
050.60	Soluble Potassium as K2O, Flame Photometric (... (15%)	0510	15.19	0.0400	15.23	0.2764	0.2000	7	-0.14	0%	0
050.60	Soluble Potassium as K2O, Flame Photometric (... (15%)	0105	15.29	0.4800	15.23	0.2764	0.2000	7	0.22	0%	0
050.60	Soluble Potassium as K2O, Flame Photometric (... (15%)	0200	15.65	0.0100	15.23	0.2764	0.2000	7	1.51	1%	0
050.60	Soluble Potassium as K2O, Flame Photometric (... (15%)	0443	16.30	0.6200	15.23	0.2764	0.2000	7	3.88	4%	0
050.61	Soluble Potassium as K2O, Flame Photometric (... (15%)	0034	13.68*	0.1515	15.13	1.107	0.1379	4	-1.31	5%	0
050.61	Soluble Potassium as K2O, Flame Photometric (... (15%)	0513	14.92	0.0200	15.13	1.107	0.1379	4	-0.19	1%	0
050.61	Soluble Potassium as K2O, Flame Photometric (... (15%)	0035	15.66	0.2400	15.13	1.107	0.1379	4	0.48	2%	0
050.61	Soluble Potassium as K2O, Flame Photometric (... (15%)	0456	16.25	0.1400	15.13	1.107	0.1379	4	1.01	4%	0
050.62	Soluble Potassium as K2O, Flame Photometric (... (15%)	0105	15.34	0.2900	15.44	0.1706	0.2867	3	-0.63	0%	0
050.62	Soluble Potassium as K2O, Flame Photometric (... (15%)	0029	15.36	0.1500	15.44	0.1706	0.2867	3	-0.52	0%	0
050.62	Soluble Potassium as K2O, Flame Photometric (... (15%)	0095	15.64	0.4200	15.44	0.1706	0.2867	3	1.15	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0506	11.00*	0.2000	15.07	0.6380	0.2546	23	-6.39	14%	0
050.99	Soluble Potassium as K2O, Other (15%)	0325	12.20*	0.4000	15.07	0.6380	0.2546	23	-4.51	10%	0
050.99	Soluble Potassium as K2O, Other (15%)	0042	14.36	0.3500	15.07	0.6380	0.2546	23	-1.13	2%	0
050.99	Soluble Potassium as K2O, Other (15%)	0096	14.44	0.3300	15.07	0.6380	0.2546	23	-1.00	2%	0
050.99	Soluble Potassium as K2O, Other (15%)	0307	14.58	0.7890	15.07	0.6380	0.2546	23	-0.77	2%	0
050.99	Soluble Potassium as K2O, Other (15%)	0300	14.70	0.0900	15.07	0.6380	0.2546	23	-0.59	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0481	14.70	0.3700	15.07	0.6380	0.2546	23	-0.59	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0394	14.70	0.2000	15.07	0.6380	0.2546	23	-0.59	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0498	14.70	0.2000	15.07	0.6380	0.2546	23	-0.59	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0457	14.76	0.5100	15.07	0.6380	0.2546	23	-0.50	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0402	15.06	0.0034	15.07	0.6380	0.2546	23	-0.02	0%	0
050.99	Soluble Potassium as K2O, Other (15%)	0451	15.08	0.4600	15.07	0.6380	0.2546	23	0.01	0%	0
050.99	Soluble Potassium as K2O, Other (15%)	0389	15.10	0.2000	15.07	0.6380	0.2546	23	0.04	0%	0
050.99	Soluble Potassium as K2O, Other (15%)	0482	15.25	0.3000	15.07	0.6380	0.2546	23	0.28	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0444	15.27	0.0100	15.07	0.6380	0.2546	23	0.30	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0043	15.28	0.0500	15.07	0.6380	0.2546	23	0.31	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0177	15.39	0.1044	15.07	0.6380	0.2546	23	0.49	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0105	15.57	0.3200	15.07	0.6380	0.2546	23	0.78	2%	0
050.99	Soluble Potassium as K2O, Other (15%)	0027	15.65	0.1580	15.07	0.6380	0.2546	23	0.90	2%	0
050.99	Soluble Potassium as K2O, Other (15%)	0455	15.89	0.0200	15.07	0.6380	0.2546	23	1.28	3%	0
050.99	Soluble Potassium as K2O, Other (15%)	0234	16.27	0.1900	15.07	0.6380	0.2546	23	1.87	4%	0
050.99	Soluble Potassium as K2O, Other (15%)	0371	17.50	0.4000	15.07	0.6380	0.2546	23	3.80	8%	0
050.99	Soluble Potassium as K2O, Other (15%)	0487	20.60	0.2000	15.07	0.6380	0.2546	23	8.66	18%	0
060.00	Water (Free), Vacuum Oven (%)	0007	0.3850	0.0100	0.7723	0.4066	0.0723	4	-0.95	25%	0
060.00	Water (Free), Vacuum Oven (%)	0456	0.4600	0.0200	0.7723	0.4066	0.0723	4	-0.77	20%	0
060.00	Water (Free), Vacuum Oven (%)	0096	1.080	0.1800	0.7723	0.4066	0.0723	4	0.76	20%	0
060.00	Water (Free), Vacuum Oven (%)	0416	1.164	0.0792	0.7723	0.4066	0.0723	4	0.96	25%	0
060.99	Water (Free), Other (%)	0009	1.215	0.0500	1.390	0.2475	0.0500	2	-0.71	6%	0
060.99	Water (Free), Other (%)	0510	1.565	0.0500	1.390	0.2475	0.0500	2	0.71	6%	0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (%)	0105	0.0111	0.0007			0.0007	1			0
101.03	Acid Soluble Calcium, AA, 965.09, test portio... (%)	0105	0.0114	0.0008			0.0008	1			0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0102	0.0115	0.0010	0.0281	0.0164	0.0167	9	-1.01	30%	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				
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0420	0.0150	0.0000	0.0281	0.0164	0.0167	9	-0.80	23%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0482	0.0150	0.0100	0.0281	0.0164	0.0167	9	-0.80	23%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0096	0.0185	0.0050	0.0281	0.0164	0.0167	9	-0.59	17%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0035	0.0255	0.0130	0.0281	0.0164	0.0167	9	-0.16	5%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0324	0.0345	0.0090	0.0281	0.0164	0.0167	9	0.39	11%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0041	0.0350	0.0500	0.0281	0.0164	0.0167	9	0.42	12%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0049	0.0550	0.0100	0.0281	0.0164	0.0167	9	1.64	48%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0354	0.0690	0.0520	0.0281	0.0164	0.0167	9	2.50	73%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0494	0.0177	0.0025			0.0025	1			0
101.99	Acid Soluble Calcium, Other (%)	0389	0.0325	0.0050			0.0050	1			0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (0.1%)	0498	0.3200	0.0000	0.3543	0.0241	0.0139	9	-1.42	5%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (0.1%)	0105	0.3344	0.0085	0.3543	0.0241	0.0139	9	-0.83	3%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (0.1%)	0457	0.3420	0.0360	0.3543	0.0241	0.0139	9	-0.51	2%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (0.1%)	0485	0.3448	0.0205	0.3543	0.0241	0.0139	9	-0.40	1%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (0.1%)	0516	0.3525	0.0250	0.3543	0.0241	0.0139	9	-0.07	0%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (0.1%)	0029	0.3652	0.0069	0.3543	0.0241	0.0139	9	0.45	2%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (0.1%)	0157	0.3680	0.0080	0.3543	0.0241	0.0139	9	0.57	2%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (0.1%)	0481	0.3750	0.0100	0.3543	0.0241	0.0139	9	0.86	3%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (0.1%)	0043	0.8600	0.0100	0.3543	0.0241	0.0139	9	20.96	71%	0
121.03	Acid Soluble Magnesium, AA, 965.09, test port... (0.1%)	0105	0.3241	0.0095	0.3420	0.0254	0.0048	2	-0.71	3%	0
121.03	Acid Soluble Magnesium, AA, 965.09, test port... (0.1%)	0500	0.3600	0.0000	0.3420	0.0254	0.0048	2	0.71	3%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0420	0.3083	0.0121	0.3671	0.0201	0.0160	24	-2.93	8%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0291	0.3215	0.0010	0.3671	0.0201	0.0160	24	-2.27	6%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0157	0.3320	0.0080	0.3671	0.0201	0.0160	24	-1.75	5%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0444	0.3450	0.0100	0.3671	0.0201	0.0160	24	-1.10	3%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0035	0.3480	0.0140	0.3671	0.0201	0.0160	24	-0.95	3%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0049	0.3550	0.0100	0.3671	0.0201	0.0160	24	-0.60	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0231	0.3550	0.0100	0.3671	0.0201	0.0160	24	-0.60	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0041	0.3600	0.0400	0.3671	0.0201	0.0160	24	-0.35	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0354	0.3640	0.0080	0.3671	0.0201	0.0160	24	-0.15	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0234	0.3650	0.0300	0.3671	0.0201	0.0160	24	-0.10	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0324	0.3650	0.0360	0.3671	0.0201	0.0160	24	-0.10	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0482	0.3650	0.0100	0.3671	0.0201	0.0160	24	-0.10	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0055	0.3700	0.0200	0.3671	0.0201	0.0160	24	0.15	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0095	0.3700	0.0000	0.3671	0.0201	0.0160	24	0.15	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0096	0.3700	0.0000	0.3671	0.0201	0.0160	24	0.15	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0433	0.3704	0.0153	0.3671	0.0201	0.0160	24	0.16	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0360	0.3705	0.0010	0.3671	0.0201	0.0160	24	0.17	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0390	0.3705	0.0070	0.3671	0.0201	0.0160	24	0.17	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0102	0.3825	0.0230	0.3671	0.0201	0.0160	24	0.77	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0452	0.3835	0.0030	0.3671	0.0201	0.0160	24	0.82	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0472	0.4050	0.0300	0.3671	0.0201	0.0160	24	1.89	5%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0230	0.4165	0.0250	0.3671	0.0201	0.0160	24	2.46	7%	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				
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0483	0.4615	0.0350	0.3671	0.0201	0.0160	24	4.70	13%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0307	0.5095	0.0350	0.3671	0.0201	0.0160	24	7.09	19%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (0.1%)	0131	0.2312	0.0840	0.3671	0.0201	0.0160	24	-6.76	19%	1
121.32	Acid Soluble Magnesium, ICP, test portion 200... (0.1%)	0394	0.3480	0.0160	0.3580	0.0141	0.0180	2	-0.71	1%	0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (0.1%)	0300	0.3680	0.0200	0.3580	0.0141	0.0180	2	0.71	1%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (0.1%)	0515	0.3249	0.0155	0.3638	0.0175	0.0108	6	-2.22	5%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (0.1%)	0486	0.3350	0.0100	0.3638	0.0175	0.0108	6	-1.64	4%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (0.1%)	0037	0.3660	0.0040	0.3638	0.0175	0.0108	6	0.12	0%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (0.1%)	0177	0.3702	0.0013	0.3638	0.0175	0.0108	6	0.36	1%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (0.1%)	0023	0.3770	0.0140	0.3638	0.0175	0.0108	6	0.75	2%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (0.1%)	0136	0.3800	0.0200	0.3638	0.0175	0.0108	6	0.92	2%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (0.1%)	0494	0.3326	0.0651	0.3638	0.0175	0.0108	6	-1.78	4%	1
121.99	Acid Soluble Magnesium, Other (0.1%)	0042	0.3250	0.0500	0.3534	0.0200	0.0319	5	-1.42	4%	0
121.99	Acid Soluble Magnesium, Other (0.1%)	0515	0.3425	0.0513	0.3534	0.0200	0.0319	5	-0.55	2%	0
121.99	Acid Soluble Magnesium, Other (0.1%)	0512	0.3566	0.0443	0.3534	0.0200	0.0319	5	0.16	0%	0
121.99	Acid Soluble Magnesium, Other (0.1%)	0220	0.3700	0.0000	0.3534	0.0200	0.0319	5	0.83	2%	0
121.99	Acid Soluble Magnesium, Other (0.1%)	0389	0.3730	0.0140	0.3534	0.0200	0.0319	5	0.98	3%	0
121.99	Acid Soluble Magnesium, Other (0.1%)	0487	1.100	0.4000	0.3534	0.0200	0.0319	5	37.38	106%	1
131.00	Water Soluble Magnesium, AA (%)	0485	0.3580	0.0240			0.0240	1			0
131.30	Water Soluble Magnesium, ICP (%)	0394	0.3200	0.0200	0.3726	0.0157	0.0138	6	-3.36	7%	0
131.30	Water Soluble Magnesium, ICP (%)	0231	0.3650	0.0100	0.3726	0.0157	0.0138	6	-0.48	1%	0
131.30	Water Soluble Magnesium, ICP (%)	0444	0.3650	0.0100	0.3726	0.0157	0.0138	6	-0.48	1%	0
131.30	Water Soluble Magnesium, ICP (%)	0275	0.3800	0.0200	0.3726	0.0157	0.0138	6	0.47	1%	0
131.30	Water Soluble Magnesium, ICP (%)	0027	0.3825	0.0030	0.3726	0.0157	0.0138	6	0.63	1%	0
131.30	Water Soluble Magnesium, ICP (%)	0371	0.3900	0.0200	0.3726	0.0157	0.0138	6	1.11	2%	0
131.30	Water Soluble Magnesium, ICP (%)	0230	0.0000	0.0000	0.3726	0.0157	0.0138	6	-23.79	50%	4
143.99	Elemental Sulfur, Other (%)	0390	0.3045	0.0030	0.3233	0.0265	0.0085	2	-0.71	3%	0
143.99	Elemental Sulfur, Other (%)	0389	0.3420	0.0140	0.3233	0.0265	0.0085	2	0.71	3%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0485	0.0140	0.0006	0.1347	0.1258	0.0135	3	-0.96	45%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0405	0.1250	0.0100	0.1347	0.1258	0.0135	3	-0.08	4%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0043	0.2650	0.0300	0.1347	0.1258	0.0135	3	1.04	48%	0
145.99	Sulfate Sulfur, HCl soluble, Other (%)	0231	0.2900	0.0000	0.2975	0.0106	0.0150	2	-0.71	1%	0
145.99	Sulfate Sulfur, HCl soluble, Other (%)	0444	0.3050	0.0300	0.2975	0.0106	0.0150	2	0.71	1%	0
146.00	Total Sulfur in Liquid, Gravimetric - sulfate... (%)	0220	0.3400	0.0000			0.0000	1			0
148.00	Total Sulfur, Combustion (0.13%)	0360	0.3050	0.0300	0.4180	0.1598	0.0570	2	-0.71	14%	0
148.00	Total Sulfur, Combustion (0.13%)	0029	0.5310	0.0840	0.4180	0.1598	0.0570	2	0.71	14%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (0.13%)	0105	0.0030*	0.0040	0.1613	0.1463	0.0121	7	-1.08	49%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (0.13%)	0485	0.0140*	0.0006	0.1613	0.1463	0.0121	7	-1.01	46%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (0.13%)	0095	0.1250	0.0100	0.1613	0.1463	0.0121	7	-0.25	11%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (0.13%)	0405	0.1250	0.0100	0.1613	0.1463	0.0121	7	-0.25	11%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (0.13%)	0324	0.2620	0.0200	0.1613	0.1463	0.0121	7	0.69	31%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (0.13%)	0481	0.2700	0.0400	0.1613	0.1463	0.0121	7	0.74	34%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (0.13%)	0055	0.3300	0.0000	0.1613	0.1463	0.0121	7	1.15	52%	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				
148.01	Total Sulfur, Gravimetric - sulfate and elem... (0.13%)	0230	0.0000*	0.0000	0.1613	0.1463	0.0121	7	-1.10	50%	4
148.04	Total Sulfur, ICP, w/Br digestion (0.13%)	0394	0.3000	0.0200			0.0200	1			0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (0.13%)	0292	0.2400	0.0000	0.3138	0.0515	0.0322	9	-1.43	12%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (0.13%)	0486	0.2450	0.0100	0.3138	0.0515	0.0322	9	-1.33	11%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (0.13%)	0515	0.2631	0.0560	0.3138	0.0515	0.0322	9	-0.98	8%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (0.13%)	0177	0.3079	0.0098	0.3138	0.0515	0.0322	9	-0.11	1%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (0.13%)	0102	0.3220	0.0380	0.3138	0.0515	0.0322	9	0.16	1%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (0.13%)	0444	0.3300	0.0600	0.3138	0.0515	0.0322	9	0.32	3%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (0.13%)	0023	0.3475	0.0130	0.3138	0.0515	0.0322	9	0.66	5%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (0.13%)	0494	0.3504	0.0599	0.3138	0.0515	0.0322	9	0.71	6%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (0.13%)	0483	0.4425	0.0430	0.3138	0.0515	0.0322	9	2.50	21%	0
148.99	Total Sulfur, Other (0.13%)	0513	0.1285	0.0001	0.2989	0.0609	0.0134	10	-2.80	29%	0
148.99	Total Sulfur, Other (0.13%)	0506	0.1800	0.0000	0.2989	0.0609	0.0134	10	-1.95	20%	0
148.99	Total Sulfur, Other (0.13%)	0291	0.2665	0.0010	0.2989	0.0609	0.0134	10	-0.53	5%	0
148.99	Total Sulfur, Other (0.13%)	0300	0.2855	0.0230	0.2989	0.0609	0.0134	10	-0.22	2%	0
148.99	Total Sulfur, Other (0.13%)	0096	0.2900	0.0100	0.2989	0.0609	0.0134	10	-0.15	1%	0
148.99	Total Sulfur, Other (0.13%)	0452	0.3130	0.0060	0.2989	0.0609	0.0134	10	0.23	2%	0
148.99	Total Sulfur, Other (0.13%)	0354	0.3210	0.0340	0.2989	0.0609	0.0134	10	0.36	4%	0
148.99	Total Sulfur, Other (0.13%)	0482	0.3400	0.0200	0.2989	0.0609	0.0134	10	0.68	7%	0
148.99	Total Sulfur, Other (0.13%)	0275	0.3500	0.0200	0.2989	0.0609	0.0134	10	0.84	9%	0
148.99	Total Sulfur, Other (0.13%)	0371	0.3900	0.0200	0.2989	0.0609	0.0134	10	1.50	15%	0
151.00	Acid Soluble Arsenic , AA, test portion as i... (ppm)	0136	0.0400	0.0200			0.0200	1			0
151.30	Acid Soluble Arsenic , ICP (ppm)	0394	0.0527	0.0067	1.161	1.853	0.3579	3	-0.60	48%	0
151.30	Acid Soluble Arsenic , ICP (ppm)	0230	0.1295	0.0670	1.161	1.853	0.3579	3	-0.56	44%	0
151.30	Acid Soluble Arsenic , ICP (ppm)	0389	3.300	1.000	1.161	1.853	0.3579	3	1.15	92%	0
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified... (ppm)	0515	0.0000	0.0000			0.0000	0			4
151.34	Acid Soluble Arsenic , ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000			0.0000	0			4
151.99	Acid Soluble Arsenic , Other (ppm)	0220	0.8000	0.6000			0.6000	1			0
165.00	Acid Soluble Boron , Spectrophotometric (0.025%)	0037	0.0210*	0.0040	0.0320	0.0087	0.0038	8	-1.26	17%	0
165.00	Acid Soluble Boron , Spectrophotometric (0.025%)	0506	0.0250	0.0100	0.0320	0.0087	0.0038	8	-0.80	11%	0
165.00	Acid Soluble Boron , Spectrophotometric (0.025%)	0220	0.0280	0.0020	0.0320	0.0087	0.0038	8	-0.46	6%	0
165.00	Acid Soluble Boron , Spectrophotometric (0.025%)	0029	0.0295	0.0010	0.0320	0.0087	0.0038	8	-0.29	4%	0
165.00	Acid Soluble Boron , Spectrophotometric (0.025%)	0028	0.0330	0.0000	0.0320	0.0087	0.0038	8	0.11	2%	0
165.00	Acid Soluble Boron , Spectrophotometric (0.025%)	0481	0.0370	0.0000	0.0320	0.0087	0.0038	8	0.57	8%	0
165.00	Acid Soluble Boron , Spectrophotometric (0.025%)	0105	0.0380	0.0031	0.0320	0.0087	0.0038	8	0.68	9%	0
165.00	Acid Soluble Boron , Spectrophotometric (0.025%)	0055	0.1950	0.0100	0.0320	0.0087	0.0038	8	18.73	255%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0433	0.0235	0.0012	0.0298	0.0027	0.0018	14	-2.38	11%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0090	0.0275	0.0050	0.0298	0.0027	0.0018	14	-0.88	4%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0444	0.0280	0.0040	0.0298	0.0027	0.0018	14	-0.69	3%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0291	0.0280	0.0000	0.0298	0.0027	0.0018	14	-0.69	3%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0324	0.0284	0.0034	0.0298	0.0027	0.0018	14	-0.54	2%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0494	0.0286	0.0001	0.0298	0.0027	0.0018	14	-0.49	2%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0485	0.0287	0.0002	0.0298	0.0027	0.0018	14	-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 98... (0.025%)	0394	0.0295	0.0030	0.0298	0.0027	0.0018	14	-0.13	1%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0452	0.0310	0.0000	0.0298	0.0027	0.0018	14	0.43	2%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0389	0.0313	0.0008	0.0298	0.0027	0.0018	14	0.54	2%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0397	0.0321	0.0002	0.0298	0.0027	0.0018	14	0.85	4%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0402	0.0359	0.0001	0.0298	0.0027	0.0018	14	2.25	10%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0354	0.0360	0.0040	0.0298	0.0027	0.0018	14	2.31	10%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0136	0.0365	0.0030	0.0298	0.0027	0.0018	14	2.50	11%	0
165.30	Acid Soluble Boron , ICP, test portion in 98... (0.025%)	0023	0.0250	0.0100	0.0298	0.0027	0.0018	14	-1.82	8%	1
165.99	Acid Soluble Boron , Other (0.025%)	0457	0.0220*	0.0020	0.0300	0.0030	0.0014	13	-2.66	13%	0
165.99	Acid Soluble Boron , Other (0.025%)	0486	0.0265	0.0010	0.0300	0.0030	0.0014	13	-1.16	6%	0
165.99	Acid Soluble Boron , Other (0.025%)	0300	0.0274	0.0001	0.0300	0.0030	0.0014	13	-0.88	4%	0
165.99	Acid Soluble Boron , Other (0.025%)	0515	0.0283	0.0023	0.0300	0.0030	0.0014	13	-0.57	3%	0
165.99	Acid Soluble Boron , Other (0.025%)	0513	0.0293	0.0015	0.0300	0.0030	0.0014	13	-0.24	1%	0
165.99	Acid Soluble Boron , Other (0.025%)	0095	0.0300	0.0000	0.0300	0.0030	0.0014	13	0.01	0%	0
165.99	Acid Soluble Boron , Other (0.025%)	0231	0.0300	0.0020	0.0300	0.0030	0.0014	13	0.01	0%	0
165.99	Acid Soluble Boron , Other (0.025%)	0472	0.0300	0.0000	0.0300	0.0030	0.0014	13	0.01	0%	0
165.99	Acid Soluble Boron , Other (0.025%)	0482	0.0300	0.0000	0.0300	0.0030	0.0014	13	0.01	0%	0
165.99	Acid Soluble Boron , Other (0.025%)	0360	0.0305	0.0010	0.0300	0.0030	0.0014	13	0.18	1%	0
165.99	Acid Soluble Boron , Other (0.025%)	0043	0.0349	0.0023	0.0300	0.0030	0.0014	13	1.63	8%	0
165.99	Acid Soluble Boron , Other (0.025%)	0483	0.0359	0.0023	0.0300	0.0030	0.0014	13	1.96	10%	0
165.99	Acid Soluble Boron , Other (0.025%)	0042	0.0470	0.0040	0.0300	0.0030	0.0014	13	5.68	28%	0
165.99	Acid Soluble Boron , Other (0.025%)	0230	0.0486	0.0288	0.0300	0.0030	0.0014	13	6.22	31%	1
171.99	Water Soluble Boron , Other (%)	0444	0.0275	0.0030	0.0288	0.0018	0.0025	2	-0.71	2%	0
171.99	Water Soluble Boron , Other (%)	0027	0.0300	0.0020	0.0288	0.0018	0.0025	2	0.71	2%	0
181.00	Acid Soluble Cadmium , AA, test portion as i... (ppm)	0136	0.1500	0.1000	0.4750	0.4596	0.0500	2	-0.71	34%	0
181.00	Acid Soluble Cadmium , AA, test portion as i... (ppm)	0500	0.8000	0.0000	0.4750	0.4596	0.0500	2	0.71	34%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0102	0.0480	0.0120	0.0583	0.0090	0.0081	3	-1.15	9%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0230	0.0625	0.0094	0.0583	0.0090	0.0081	3	0.46	4%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0452	0.0645	0.0030	0.0583	0.0090	0.0081	3	0.68	5%	0
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified... (ppm)	0515	1.770	0.7690			0.7690	1			0
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000			0.0000	0			4
181.99	Acid Soluble Cadmium , Other (ppm)	0220	0.0100	0.0000	0.0550	0.0636	0.0000	2	-0.71	41%	0
181.99	Acid Soluble Cadmium , Other (ppm)	0498	0.1000	0.0000	0.0550	0.0636	0.0000	2	0.71	41%	0
190.00	Water Soluble Chlorine, Titrimetric (%)	0105	0.1950	0.0100			0.0100	1			0
191.00	Acid Soluble Chromium , AA, test portion as ... (ppm)	0500	5.000	0.0000			0.0000	1			0
191.30	Acid Soluble Chromium , ICP (ppm)	0230	0.1477	0.0073	1.368	0.7933	0.1265	8	-1.54	45%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0452	0.8720	0.0140	1.368	0.7933	0.1265	8	-0.63	18%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0394	1.025	0.0300	1.368	0.7933	0.1265	8	-0.43	13%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0102	1.188	0.0210	1.368	0.7933	0.1265	8	-0.23	7%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0482	1.405	0.1900	1.368	0.7933	0.1265	8	0.05	1%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0389	1.850	0.1000	1.368	0.7933	0.1265	8	0.61	18%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0444	2.015	0.2900	1.368	0.7933	0.1265	8	0.82	24%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0035	3.420	0.3600	1.368	0.7933	0.1265	8	2.59	75%	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				
191.33	Acid Soluble Chromium , ICP, 2006.03 modifie... (ppm)	0515	2.100	0.8200	2.858	1.073	0.4151	2	-0.71	13%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modifie... (ppm)	0494	3.617	0.0101	2.858	1.073	0.4151	2	0.71	13%	0
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C... (ppm)	0515	2.557	1.966			1.966	1			0
191.99	Acid Soluble Chromium , Other (ppm)	0220	1.400	0.4000	2.858	1.073	0.4000	1	-1.36	26%	0
191.99	Acid Soluble Chromium , Other (ppm)	0512	7.940	15.88	2.858	1.073	0.4000	1	4.74	89%	4
202.00	Acid Soluble Cobalt , AA, test portion as in... (ppm)	0500	12.00	0.0000			0.0000	1			0
202.30	Acid Soluble Cobalt , ICP (ppm)	0035	15.20	0.4000	17.60	2.180	0.5078	8	-1.10	7%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0482	15.60	0.2000	17.60	2.180	0.5078	8	-0.92	6%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0095	16.50	1.000	17.60	2.180	0.5078	8	-0.50	3%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0096	16.81	0.1800	17.60	2.180	0.5078	8	-0.36	2%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0102	17.94	0.4620	17.60	2.180	0.5078	8	0.16	1%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0452	18.77	0.0200	17.60	2.180	0.5078	8	0.54	3%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0389	19.10	1.000	17.60	2.180	0.5078	8	0.69	4%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0230	22.00	0.8000	17.60	2.180	0.5078	8	2.02	13%	0
202.32	Acid Soluble Cobalt , ICP, 2006.03 (ppm)	0300	15.35	0.9000			0.9000	1			0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified ... (ppm)	0037	13.61	0.7700	14.75	1.571	0.9602	3	-0.73	4%	0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified ... (ppm)	0515	14.10	1.226	14.75	1.571	0.9602	3	-0.41	2%	0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified ... (ppm)	0494	16.54	0.8849	14.75	1.571	0.9602	3	1.14	6%	0
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	0515	17.63	0.5520			0.5520	1			0
202.99	Acid Soluble Cobalt , Other (ppm)	0512	13.77	0.2000	16.69	2.533	0.8000	3	-1.15	9%	0
202.99	Acid Soluble Cobalt , Other (ppm)	0481	18.00	2.000	16.69	2.533	0.8000	3	0.52	4%	0
202.99	Acid Soluble Cobalt , Other (ppm)	0220	18.30	0.2000	16.69	2.533	0.8000	3	0.64	5%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (... (0.0125%)	0516	0.0086	0.0005	0.0150	0.0008	0.0004	7	-7.74	22%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (... (0.0125%)	0513	0.0129	0.0002	0.0150	0.0008	0.0004	7	-2.56	7%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (... (0.0125%)	0481	0.0150	0.0000	0.0150	0.0008	0.0004	7	-0.06	0%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (... (0.0125%)	0029	0.0151	0.0004	0.0150	0.0008	0.0004	7	0.06	0%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (... (0.0125%)	0105	0.0154	0.0002	0.0150	0.0008	0.0004	7	0.42	1%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (... (0.0125%)	0485	0.0156	0.0005	0.0150	0.0008	0.0004	7	0.60	2%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (... (0.0125%)	0043	0.0380	0.0010	0.0150	0.0008	0.0004	7	27.33	76%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (... (0.0125%)	0498	7.508	14.98	0.0150	0.0008	0.0004	7	8921.71	24894%	2
221.03	Acid Soluble Copper , AA, 965.09, test porti... (0.0125%)	0500	0.0149	0.0000	0.0153	0.0006	0.0001	3	-0.66	1%	0
221.03	Acid Soluble Copper , AA, 965.09, test porti... (0.0125%)	0105	0.0150	0.0004	0.0153	0.0006	0.0001	3	-0.49	1%	0
221.03	Acid Soluble Copper , AA, 965.09, test porti... (0.0125%)	0023	0.0160	0.0000	0.0153	0.0006	0.0001	3	1.15	2%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0131	0.0086	0.0027	0.0151	0.0023	0.0006	22	-2.80	22%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0095	0.0100	0.0000	0.0151	0.0023	0.0006	22	-2.18	17%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0041	0.0130	0.0000	0.0151	0.0023	0.0006	22	-0.89	7%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0433	0.0131	0.0002	0.0151	0.0023	0.0006	22	-0.85	7%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0090	0.0135	0.0010	0.0151	0.0023	0.0006	22	-0.68	5%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0360	0.0138	0.0003	0.0151	0.0023	0.0006	22	-0.57	4%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0324	0.0138	0.0005	0.0151	0.0023	0.0006	22	-0.57	4%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0291	0.0140	0.0000	0.0151	0.0023	0.0006	22	-0.46	4%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0452	0.0140	0.0000	0.0151	0.0023	0.0006	22	-0.46	4%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0055	0.0145	0.0005	0.0151	0.0023	0.0006	22	-0.27	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				
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0307	0.0145	0.0010	0.0151	0.0023	0.0006	22	-0.25	2%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0096	0.0149	0.0005	0.0151	0.0023	0.0006	22	-0.10	1%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0035	0.0150	0.0002	0.0151	0.0023	0.0006	22	-0.03	0%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0231	0.0155	0.0010	0.0151	0.0023	0.0006	22	0.18	1%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0049	0.0160	0.0018	0.0151	0.0023	0.0006	22	0.40	3%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0402	0.0166	0.0007	0.0151	0.0023	0.0006	22	0.63	5%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0102	0.0170	0.0000	0.0151	0.0023	0.0006	22	0.83	6%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0354	0.0185	0.0010	0.0151	0.0023	0.0006	22	1.47	11%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0230	0.0200	0.0012	0.0151	0.0023	0.0006	22	2.12	16%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0472	0.0200	0.0000	0.0151	0.0023	0.0006	22	2.12	16%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0482	0.0200	0.0000	0.0151	0.0023	0.0006	22	2.12	16%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0483	0.0215	0.0006	0.0151	0.0023	0.0006	22	2.76	21%	0
221.30	Acid Soluble Copper , ICP, test portion inor... (0.0125%)	0444	0.0180	0.0060	0.0151	0.0023	0.0006	22	1.26	10%	1
221.32	Acid Soluble Copper , ICP, test portion 2006... (0.0125%)	0300	0.0135	0.0001	0.0142	0.0011	0.0011	2	-0.71	3%	0
221.32	Acid Soluble Copper , ICP, test portion 2006... (0.0125%)	0394	0.0150	0.0020	0.0142	0.0011	0.0011	2	0.71	3%	0
221.33	Acid Soluble Copper , ICP, test portion 2006... (0.0125%)	0037	0.0110	0.0000	0.0139	0.0019	0.0003	7	-1.49	10%	0
221.33	Acid Soluble Copper , ICP, test portion 2006... (0.0125%)	0397	0.0122	0.0013	0.0139	0.0019	0.0003	7	-0.89	6%	0
221.33	Acid Soluble Copper , ICP, test portion 2006... (0.0125%)	0486	0.0130	0.0000	0.0139	0.0019	0.0003	7	-0.45	3%	0
221.33	Acid Soluble Copper , ICP, test portion 2006... (0.0125%)	0515	0.0143	0.0004	0.0139	0.0019	0.0003	7	0.22	2%	0
221.33	Acid Soluble Copper , ICP, test portion 2006... (0.0125%)	0034	0.0151	0.0006	0.0139	0.0019	0.0003	7	0.64	4%	0
221.33	Acid Soluble Copper , ICP, test portion 2006... (0.0125%)	0494	0.0154	0.0000	0.0139	0.0019	0.0003	7	0.79	6%	0
221.33	Acid Soluble Copper , ICP, test portion 2006... (0.0125%)	0177	0.0158	0.0001	0.0139	0.0019	0.0003	7	0.97	7%	0
221.99	Acid Soluble Copper , Other (0.0125%)	0506	0.0100	0.0000	0.0145	0.0030	0.0007	9	-1.48	15%	0
221.99	Acid Soluble Copper , Other (0.0125%)	0512	0.0119	0.0028	0.0145	0.0030	0.0007	9	-0.85	9%	0
221.99	Acid Soluble Copper , Other (0.0125%)	0042	0.0135	0.0010	0.0145	0.0030	0.0007	9	-0.33	3%	0
221.99	Acid Soluble Copper , Other (0.0125%)	0487	0.0135	0.0002	0.0145	0.0030	0.0007	9	-0.33	3%	0
221.99	Acid Soluble Copper , Other (0.0125%)	0220	0.0140	0.0000	0.0145	0.0030	0.0007	9	-0.16	2%	0
221.99	Acid Soluble Copper , Other (0.0125%)	0390	0.0157	0.0002	0.0145	0.0030	0.0007	9	0.40	4%	0
221.99	Acid Soluble Copper , Other (0.0125%)	0515	0.0161	0.0004	0.0145	0.0030	0.0007	9	0.53	6%	0
221.99	Acid Soluble Copper , Other (0.0125%)	0027	0.0170	0.0000	0.0145	0.0030	0.0007	9	0.83	9%	0
221.99	Acid Soluble Copper , Other (0.0125%)	0389	0.0190	0.0015	0.0145	0.0030	0.0007	9	1.48	15%	0
241.00	Acid Soluble Iron , AA, inorganic 965.09 (0.125%)	0481	0.0980*	0.0000	0.1274	0.0064	0.0054	9	-4.57	12%	0
241.00	Acid Soluble Iron , AA, inorganic 965.09 (0.125%)	0516	0.1175	0.0010	0.1274	0.0064	0.0054	9	-1.54	4%	0
241.00	Acid Soluble Iron , AA, inorganic 965.09 (0.125%)	0498	0.1250	0.0100	0.1274	0.0064	0.0054	9	-0.38	1%	0
241.00	Acid Soluble Iron , AA, inorganic 965.09 (0.125%)	0485	0.1259	0.0033	0.1274	0.0064	0.0054	9	-0.24	1%	0
241.00	Acid Soluble Iron , AA, inorganic 965.09 (0.125%)	0513	0.1276	0.0001	0.1274	0.0064	0.0054	9	0.02	0%	0
241.00	Acid Soluble Iron , AA, inorganic 965.09 (0.125%)	0105	0.1280	0.0020	0.1274	0.0064	0.0054	9	0.09	0%	0
241.00	Acid Soluble Iron , AA, inorganic 965.09 (0.125%)	0029	0.1311	0.0016	0.1274	0.0064	0.0054	9	0.57	1%	0
241.00	Acid Soluble Iron , AA, inorganic 965.09 (0.125%)	0457	0.1345	0.0210	0.1274	0.0064	0.0054	9	1.10	3%	0
241.00	Acid Soluble Iron , AA, inorganic 965.09 (0.125%)	0043	0.3180	0.0100	0.1274	0.0064	0.0054	9	29.63	75%	0
241.03	Acid Soluble Iron , AA, 965.09, test portion ... (0.125%)	0105	0.1268	0.0131	0.1269	0.0002	0.0066	2	-0.71	0%	0
241.03	Acid Soluble Iron , AA, 965.09, test portion ... (0.125%)	0500	0.1270	0.0000	0.1269	0.0002	0.0066	2	0.71	0%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0324	0.0145*	0.0006	0.1311	0.0099	0.0057	26	-11.74	44%	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 inorgan... (0.125%)	0291	0.1125	0.0010	0.1311	0.0099	0.0057	26	-1.88	7%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0433	0.1162	0.0103	0.1311	0.0099	0.0057	26	-1.51	6%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0420	0.1208	0.0032	0.1311	0.0099	0.0057	26	-1.04	4%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0157	0.1235	0.0010	0.1311	0.0099	0.0057	26	-0.77	3%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0041	0.1250	0.0100	0.1311	0.0099	0.0057	26	-0.62	2%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0095	0.1250	0.0100	0.1311	0.0099	0.0057	26	-0.62	2%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0444	0.1250	0.0100	0.1311	0.0099	0.0057	26	-0.62	2%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0090	0.1260	0.0060	0.1311	0.0099	0.0057	26	-0.52	2%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0402	0.1264	0.0051	0.1311	0.0099	0.0057	26	-0.48	2%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0035	0.1290	0.0020	0.1311	0.0099	0.0057	26	-0.22	1%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0096	0.1300	0.0000	0.1311	0.0099	0.0057	26	-0.11	0%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0390	0.1300	0.0060	0.1311	0.0099	0.0057	26	-0.11	0%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0472	0.1300	0.0000	0.1311	0.0099	0.0057	26	-0.11	0%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0231	0.1325	0.0010	0.1311	0.0099	0.0057	26	0.14	1%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0360	0.1330	0.0060	0.1311	0.0099	0.0057	26	0.19	1%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0102	0.1350	0.0020	0.1311	0.0099	0.0057	26	0.39	1%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0452	0.1355	0.0010	0.1311	0.0099	0.0057	26	0.44	2%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0055	0.1380	0.0200	0.1311	0.0099	0.0057	26	0.69	3%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0025	0.1392	0.0073	0.1311	0.0099	0.0057	26	0.81	3%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0049	0.1400	0.0000	0.1311	0.0099	0.0057	26	0.89	3%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0354	0.1425	0.0050	0.1311	0.0099	0.0057	26	1.14	4%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0482	0.1450	0.0100	0.1311	0.0099	0.0057	26	1.39	5%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0230	0.1695	0.0050	0.1311	0.0099	0.0057	26	3.86	15%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0483	0.1780	0.0060	0.1311	0.0099	0.0057	26	4.72	18%	0
241.30	Acid Soluble Iron , ICP, test portion inorgan... (0.125%)	0234	0.1900	0.0200	0.1311	0.0099	0.0057	26	5.92	22%	0
241.32	Acid Soluble Iron , ICP, test portion 2006.03... (0.125%)	0300	0.1160	0.0000	0.1170	0.0014	0.0020	2	-0.71	0%	0
241.32	Acid Soluble Iron , ICP, test portion 2006.03... (0.125%)	0394	0.1180	0.0040	0.1170	0.0014	0.0020	2	0.71	0%	0
241.33	Acid Soluble Iron , ICP, test portion 2006.03... (0.125%)	0037	0.0800*	0.0040	0.1200	0.0220	0.0042	7	-1.82	17%	0
241.33	Acid Soluble Iron , ICP, test portion 2006.03... (0.125%)	0486	0.1000*	0.0000	0.1200	0.0220	0.0042	7	-0.91	8%	0
241.33	Acid Soluble Iron , ICP, test portion 2006.03... (0.125%)	0515	0.1111	0.0075	0.1200	0.0220	0.0042	7	-0.41	4%	0
241.33	Acid Soluble Iron , ICP, test portion 2006.03... (0.125%)	0494	0.1265	0.0037	0.1200	0.0220	0.0042	7	0.29	3%	0
241.33	Acid Soluble Iron , ICP, test portion 2006.03... (0.125%)	0177	0.1296	0.0030	0.1200	0.0220	0.0042	7	0.44	4%	0
241.33	Acid Soluble Iron , ICP, test portion 2006.03... (0.125%)	0023	0.1355	0.0010	0.1200	0.0220	0.0042	7	0.71	6%	0
241.33	Acid Soluble Iron , ICP, test portion 2006.03... (0.125%)	0136	0.1450	0.0100	0.1200	0.0220	0.0042	7	1.14	10%	0
241.99	Acid Soluble Iron , Other (0.125%)	0512	0.0884*	0.0195	0.1224	0.0222	0.0097	7	-1.54	14%	0
241.99	Acid Soluble Iron , Other (0.125%)	0506	0.1050*	0.0100	0.1224	0.0222	0.0097	7	-0.79	7%	0
241.99	Acid Soluble Iron , Other (0.125%)	0389	0.1235	0.0010	0.1224	0.0222	0.0097	7	0.05	0%	0
241.99	Acid Soluble Iron , Other (0.125%)	0042	0.1250	0.0300	0.1224	0.0222	0.0097	7	0.12	1%	0
241.99	Acid Soluble Iron , Other (0.125%)	0220	0.1285	0.0010	0.1224	0.0222	0.0097	7	0.27	2%	0
241.99	Acid Soluble Iron , Other (0.125%)	0027	0.1425	0.0010	0.1224	0.0222	0.0097	7	0.91	8%	0
241.99	Acid Soluble Iron , Other (0.125%)	0515	0.1433	0.0051	0.1224	0.0222	0.0097	7	0.94	9%	0
251.00	Acid Soluble Lead , AA, test portion as in 2... (ppm)	0136	2.000	0.0000			0.0000	1			0
251.30	Acid Soluble Lead , ICP (ppm)	0444	1.570	0.0400	2.442	0.7333	0.1297	7	-1.19	18%	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)	0394	1.955	0.0100	2.442	0.7333	0.1297	7	-0.66	10%	0
251.30	Acid Soluble Lead , ICP (ppm)	0230	2.070	0.2800	2.442	0.7333	0.1297	7	-0.51	8%	0
251.30	Acid Soluble Lead , ICP (ppm)	0102	2.430	0.1380	2.442	0.7333	0.1297	7	-0.02	0%	0
251.30	Acid Soluble Lead , ICP (ppm)	0096	2.650	0.1000	2.442	0.7333	0.1297	7	0.28	4%	0
251.30	Acid Soluble Lead , ICP (ppm)	0452	2.930	0.0600	2.442	0.7333	0.1297	7	0.67	10%	0
251.30	Acid Soluble Lead , ICP (ppm)	0035	3.800	0.2800	2.442	0.7333	0.1297	7	1.85	28%	0
251.32	Acid Soluble Lead , ICP, 2006.03 (ppm)	0300	1.805	0.1300			0.1300	1			0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/... (ppm)	0515	1.818	2.150	2.072	0.3590	1.116	2	-0.71	6%	0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/... (ppm)	0494	2.326	0.0809	2.072	0.3590	1.116	2	0.71	6%	0
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	0515	3.406	0.3510			0.3510	1			0
251.99	Acid Soluble Lead , Other (ppm)	0481	1.930	0.0000	9.997	17.45	10.89	5	-0.46	40%	0
251.99	Acid Soluble Lead , Other (ppm)	0506	2.000	0.0000	9.997	17.45	10.89	5	-0.46	40%	0
251.99	Acid Soluble Lead , Other (ppm)	0498	2.155	0.2100	9.997	17.45	10.89	5	-0.45	39%	0
251.99	Acid Soluble Lead , Other (ppm)	0220	2.700	0.0000	9.997	17.45	10.89	5	-0.42	36%	0
251.99	Acid Soluble Lead , Other (ppm)	0512	41.20	54.24	9.997	17.45	10.89	5	1.79	156%	0
261.00	Acid Soluble Manganese , AA, Mn2+ only (0.063%)	0043	0.1666	0.0008			0.0008	1			0
261.11	Acid Soluble Manganese , AA, total Mn (0.063%)	0498	0.0635	0.0050	0.0653	0.0025	0.0035	2	-0.71	1%	0
261.11	Acid Soluble Manganese , AA, total Mn (0.063%)	0481	0.0670	0.0020	0.0653	0.0025	0.0035	2	0.71	1%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.0... (0.063%)	0513	0.0600	0.0020	0.0665	0.0049	0.0021	6	-1.32	5%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.0... (0.063%)	0485	0.0648	0.0014	0.0665	0.0049	0.0021	6	-0.35	1%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.0... (0.063%)	0105	0.0651	0.0018	0.0665	0.0049	0.0021	6	-0.28	1%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.0... (0.063%)	0457	0.0665	0.0050	0.0665	0.0049	0.0021	6	0.00	0%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.0... (0.063%)	0040	0.0705	0.0010	0.0665	0.0049	0.0021	6	0.81	3%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.0... (0.063%)	0029	0.0737	0.0015	0.0665	0.0049	0.0021	6	1.45	5%	0
261.15	Acid Soluble Manganese , AA, 965.09, test po... (0.063%)	0105	0.0633	0.0007	0.0655	0.0032	0.0004	2	-0.71	2%	0
261.15	Acid Soluble Manganese , AA, 965.09, test po... (0.063%)	0500	0.0678	0.0001	0.0655	0.0032	0.0004	2	0.71	2%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0131	0.0401*	0.0061	0.0653	0.0043	0.0027	18	-5.86	19%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0433	0.0547	0.0044	0.0653	0.0043	0.0027	18	-2.46	8%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0157	0.0570	0.0040	0.0653	0.0043	0.0027	18	-1.93	6%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0420	0.0599	0.0020	0.0653	0.0043	0.0027	18	-1.25	4%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0472	0.0600	0.0000	0.0653	0.0043	0.0027	18	-1.23	4%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0090	0.0635	0.0030	0.0653	0.0043	0.0027	18	-0.42	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0096	0.0642	0.0001	0.0653	0.0043	0.0027	18	-0.26	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0291	0.0645	0.0010	0.0653	0.0043	0.0027	18	-0.18	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0041	0.0655	0.0030	0.0653	0.0043	0.0027	18	0.05	0%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0231	0.0665	0.0010	0.0653	0.0043	0.0027	18	0.28	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0354	0.0665	0.0030	0.0653	0.0043	0.0027	18	0.28	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0055	0.0668	0.0076	0.0653	0.0043	0.0027	18	0.35	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0035	0.0670	0.0003	0.0653	0.0043	0.0027	18	0.39	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0452	0.0670	0.0000	0.0653	0.0043	0.0027	18	0.40	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0102	0.0685	0.0010	0.0653	0.0043	0.0027	18	0.75	2%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0390	0.0700	0.0014	0.0653	0.0043	0.0027	18	1.09	4%	0
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0025	0.0744	0.0034	0.0653	0.0043	0.0027	18	2.12	7%	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				
261.30	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0230	0.0898	0.0072	0.0653	0.0043	0.0027	18	5.69	19%	0
261.31	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0360	0.0675	0.0010	0.0704	0.0041	0.0037	3	-0.71	2%	0
261.31	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0324	0.0686	0.0002	0.0704	0.0041	0.0037	3	-0.44	1%	0
261.31	Acid Soluble Manganese , ICP, test portion 9... (0.063%)	0482	0.0750	0.0100	0.0704	0.0041	0.0037	3	1.14	3%	0
261.32	Acid Soluble Manganese , ICP, test portion i... (0.063%)	0444	0.0610	0.0040	0.0686	0.0081	0.0036	4	-0.93	6%	0
261.32	Acid Soluble Manganese , ICP, test portion i... (0.063%)	0049	0.0655	0.0050	0.0686	0.0081	0.0036	4	-0.38	2%	0
261.32	Acid Soluble Manganese , ICP, test portion i... (0.063%)	0402	0.0678	0.0001	0.0686	0.0081	0.0036	4	-0.10	1%	0
261.32	Acid Soluble Manganese , ICP, test portion i... (0.063%)	0483	0.0800	0.0053	0.0686	0.0081	0.0036	4	1.41	8%	0
261.33	Acid Soluble Manganese , ICP, test portion o... (0.063%)	0037	0.0470*	0.0000			0.0000	1			0
261.34	Acid Soluble Manganese , ICP, test portion 2... (0.063%)	0300	0.0575	0.0010	0.0590	0.0021	0.0020	2	-0.71	1%	0
261.34	Acid Soluble Manganese , ICP, test portion 2... (0.063%)	0394	0.0605	0.0030	0.0590	0.0021	0.0020	2	0.71	1%	0
261.35	Acid Soluble Manganese , ICP, test portion 2... (0.063%)	0486	0.0605	0.0010	0.0646	0.0024	0.0013	5	-1.66	3%	0
261.35	Acid Soluble Manganese , ICP, test portion 2... (0.063%)	0023	0.0645	0.0010	0.0646	0.0024	0.0013	5	-0.02	0%	0
261.35	Acid Soluble Manganese , ICP, test portion 2... (0.063%)	0136	0.0650	0.0020	0.0646	0.0024	0.0013	5	0.18	0%	0
261.35	Acid Soluble Manganese , ICP, test portion 2... (0.063%)	0177	0.0659	0.0001	0.0646	0.0024	0.0013	5	0.53	1%	0
261.35	Acid Soluble Manganese , ICP, test portion 2... (0.063%)	0494	0.0669	0.0024	0.0646	0.0024	0.0013	5	0.96	2%	0
261.35	Acid Soluble Manganese , ICP, test portion 2... (0.063%)	0515	0.0478*	0.0086	0.0646	0.0024	0.0013	5	-6.86	13%	1
261.99	Acid Soluble Manganese , Other (0.063%)	0512	0.0464*	0.0057	0.0607	0.0104	0.0049	8	-1.38	12%	0
261.99	Acid Soluble Manganese , Other (0.063%)	0515	0.0536	0.0034	0.0607	0.0104	0.0049	8	-0.68	6%	0
261.99	Acid Soluble Manganese , Other (0.063%)	0506	0.0550	0.0100	0.0607	0.0104	0.0049	8	-0.55	5%	0
261.99	Acid Soluble Manganese , Other (0.063%)	0042	0.0575	0.0050	0.0607	0.0104	0.0049	8	-0.31	3%	0
261.99	Acid Soluble Manganese , Other (0.063%)	0220	0.0640	0.0020	0.0607	0.0104	0.0049	8	0.32	3%	0
261.99	Acid Soluble Manganese , Other (0.063%)	0095	0.0650	0.0100	0.0607	0.0104	0.0049	8	0.42	4%	0
261.99	Acid Soluble Manganese , Other (0.063%)	0389	0.0710	0.0011	0.0607	0.0104	0.0049	8	0.99	8%	0
261.99	Acid Soluble Manganese , Other (0.063%)	0027	0.0730	0.0020	0.0607	0.0104	0.0049	8	1.19	10%	0
271.30	Water Soluble Manganese , ICP, Ext. 972.03 (%)	0444	0.0630	0.0020			0.0020	1			0
281.00	Acid Soluble Mercury , AA (ppm)	0230	0.0053	0.0010			0.0010	1			0
281.30	Acid Soluble Mercury , ICP (ppm)	0394	0.0216	0.0035	0.0607	0.0104	0.0035	1	-3.78	32%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0009	0.0000	0.0000	0.0607	0.0104	0.0035	1	-5.86	50%	4
281.30	Acid Soluble Mercury , ICP (ppm)	0515	0.0000	0.0000	0.0607	0.0104	0.0035	1	-5.86	50%	4
289.00	Acid Soluble Molybdenum , AA, test portion i... (125ppm)	0500	140.0	0.0000			0.0000	1			0
289.30	Acid Soluble Molybdenum , ICP (125ppm)	0433	54.66	10.60	125.6	11.84	9.390	7	-5.99	28%	0
289.30	Acid Soluble Molybdenum , ICP (125ppm)	0035	111.0	10.00	125.6	11.84	9.390	7	-1.23	6%	0
289.30	Acid Soluble Molybdenum , ICP (125ppm)	0049	125.5	15.00	125.6	11.84	9.390	7	-0.01	0%	0
289.30	Acid Soluble Molybdenum , ICP (125ppm)	0102	126.9	3.224	125.6	11.84	9.390	7	0.11	1%	0
289.30	Acid Soluble Molybdenum , ICP (125ppm)	0027	127.0	8.000	125.6	11.84	9.390	7	0.12	1%	0
289.30	Acid Soluble Molybdenum , ICP (125ppm)	0096	133.4	18.70	125.6	11.84	9.390	7	0.66	3%	0
289.30	Acid Soluble Molybdenum , ICP (125ppm)	0452	148.6	0.2000	125.6	11.84	9.390	7	1.95	9%	0
289.30	Acid Soluble Molybdenum , ICP (125ppm)	0230	196.0	62.00	125.6	11.84	9.390	7	5.95	28%	1
289.30	Acid Soluble Molybdenum , ICP (125ppm)	0444	0.0145	0.0010	125.6	11.84	9.390	7	-10.61	50%	3
289.32	Acid Soluble Molybdenum , ICP, 2006.03 (125ppm)	0300	114.0	6.900			6.900	1			0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modif... (125ppm)	0515	73.45	30.15	111.4	53.67	20.16	2	-0.71	17%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modif... (125ppm)	0494	149.4	10.17	111.4	53.67	20.16	2	0.71	17%	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 modif... (125ppm)	0486	0.0110	0.0000	111.4	53.67	20.16	2	-2.08	50%	3
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/601... (125ppm)	0515	104.1	24.43			24.43	1			0
289.99	Acid Soluble Molybdenum , Other (125ppm)	0220	149.5	3.000	111.4	53.67	3.000	1	0.71	17%	0
289.99	Acid Soluble Molybdenum , Other (125ppm)	0042	11.50	1.000	111.4	53.67	3.000	1	-1.86	45%	3
291.00	Acid Soluble Nickel , AA, test portion as in... (ppm)	0500	6.050	0.1000			0.1000	1			0
291.30	Acid Soluble Nickel , ICP (ppm)	0482	0.3800	0.0200	0.7675	0.4984	0.1615	4	-0.78	25%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0230	0.3990	0.0880	0.7675	0.4984	0.1615	4	-0.74	24%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0394	0.8510	0.4380	0.7675	0.4984	0.1615	4	0.17	5%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0035	1.440	0.1000	0.7675	0.4984	0.1615	4	1.35	44%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified ... (ppm)	0494	22.65	1.462	0.7675	0.4984	1.462	1	43.90	1425%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified ... (ppm)	0515	0.0458	0.0915	0.7675	0.4984	1.462	1	-1.45	47%	4
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	0515	0.4857	0.1469			0.1469	1			0
291.99	Acid Soluble Nickel , Other (ppm)	0220	1.050	0.1000	0.7675	0.4984	0.1000	1	0.57	18%	0
291.99	Acid Soluble Nickel , Other (ppm)	0512	4.960	9.920	0.7675	0.4984	0.1000	1	8.41	273%	4
301.30	Acid Soluble Selenium , ICP (ppm)	0394	0.0900	0.0200	0.1145	0.0346	0.0870	2	-0.71	11%	0
301.30	Acid Soluble Selenium , ICP (ppm)	0230	0.1390	0.1540	0.1145	0.0346	0.0870	2	0.71	11%	0
301.33	Acid Soluble Selenium , ICP, 2006.03 modifie... (ppm)	0515	0.0000	0.0000			0.0000	0			4
301.34	Acid Soluble Selenium , ICP, EPA 3050B/6010C... (ppm)	0515	0.0000	0.0000			0.0000	0			4
301.99	Acid Soluble Selenium , Other (ppm)	0485	0.0700	0.0018			0.0018	1			0
311.30	Sodium, Flame Photometric (%)	0510	0.2850	0.0100			0.0100	1			0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0494	0.2306	0.0213	0.2478	0.0244	0.0137	2	-0.71	3%	0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0102	0.2650	0.0060	0.2478	0.0244	0.0137	2	0.71	3%	0
311.99	Sodium, Other (%)	0035	0.2385	0.0110	0.2719	0.0461	0.0258	4	-0.72	6%	0
311.99	Sodium, Other (%)	0096	0.2450	0.0100	0.2719	0.0461	0.0258	4	-0.58	5%	0
311.99	Sodium, Other (%)	0482	0.2650	0.0100	0.2719	0.0461	0.0258	4	-0.15	1%	0
311.99	Sodium, Other (%)	0354	0.3390	0.0720	0.2719	0.0461	0.0258	4	1.45	12%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	0513	0.0660	0.0040	0.0769	0.0086	0.0057	10	-1.26	7%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	0105	0.0703	0.0033	0.0769	0.0086	0.0057	10	-0.77	4%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	0498	0.0710	0.0040	0.0769	0.0086	0.0057	10	-0.68	4%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	0516	0.0712	0.0048	0.0769	0.0086	0.0057	10	-0.66	4%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	0485	0.0754	0.0014	0.0769	0.0086	0.0057	10	-0.17	1%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	0040	0.0775	0.0010	0.0769	0.0086	0.0057	10	0.07	0%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	0457	0.0800	0.0040	0.0769	0.0086	0.0057	10	0.36	2%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	0481	0.0810	0.0000	0.0769	0.0086	0.0057	10	0.47	3%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	0043	0.1770	0.0100	0.0769	0.0086	0.0057	10	11.59	65%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	0428	0.2141	0.0247	0.0769	0.0086	0.0057	10	15.89	89%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (0.063%)	0029	0.0449*	0.0619	0.0769	0.0086	0.0057	10	-3.71	21%	1
321.03	Acid Soluble Zinc , AA, 965.09, test portion... (0.063%)	0105	0.0702	0.0022	0.0736	0.0048	0.0011	2	-0.71	2%	0
321.03	Acid Soluble Zinc , AA, 965.09, test portion... (0.063%)	0500	0.0770	0.0000	0.0736	0.0048	0.0011	2	0.71	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0433	0.0572*	0.0037	0.0735	0.0052	0.0027	25	-3.17	11%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0420	0.0590*	0.0000	0.0735	0.0052	0.0027	25	-2.81	10%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0157	0.0660	0.0060	0.0735	0.0052	0.0027	25	-1.45	5%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0055	0.0683	0.0002	0.0735	0.0052	0.0027	25	-1.00	4%	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0049	0.0695	0.0070	0.0735	0.0052	0.0027	25	-0.77	3%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0095	0.0700	0.0000	0.0735	0.0052	0.0027	25	-0.67	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0292	0.0700	0.0000	0.0735	0.0052	0.0027	25	-0.67	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0472	0.0700	0.0000	0.0735	0.0052	0.0027	25	-0.67	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0090	0.0705	0.0050	0.0735	0.0052	0.0027	25	-0.57	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0307	0.0710	0.0000	0.0735	0.0052	0.0027	25	-0.48	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0402	0.0713	0.0006	0.0735	0.0052	0.0027	25	-0.42	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0360	0.0740	0.0020	0.0735	0.0052	0.0027	25	0.10	0%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0096	0.0747	0.0008	0.0735	0.0052	0.0027	25	0.24	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0025	0.0750	0.0044	0.0735	0.0052	0.0027	25	0.30	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0291	0.0750	0.0100	0.0735	0.0052	0.0027	25	0.30	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0482	0.0750	0.0100	0.0735	0.0052	0.0027	25	0.30	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0035	0.0756	0.0011	0.0735	0.0052	0.0027	25	0.41	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0390	0.0760	0.0021	0.0735	0.0052	0.0027	25	0.48	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0041	0.0770	0.0040	0.0735	0.0052	0.0027	25	0.69	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0324	0.0771	0.0006	0.0735	0.0052	0.0027	25	0.71	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0102	0.0780	0.0000	0.0735	0.0052	0.0027	25	0.88	3%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0452	0.0785	0.0010	0.0735	0.0052	0.0027	25	0.98	3%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0354	0.0790	0.0000	0.0735	0.0052	0.0027	25	1.08	4%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0230	0.0981	0.0059	0.0735	0.0052	0.0027	25	4.77	17%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0483	0.1100	0.0020	0.0735	0.0052	0.0027	25	7.09	25%	0
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0131	0.0536*	0.0265	0.0735	0.0052	0.0027	25	-3.87	14%	1
321.30	Acid Soluble Zinc , ICP, test portion inorga... (0.063%)	0231	0.7500	0.0200	0.0735	0.0052	0.0027	25	131.34	460%	2
321.32	Acid Soluble Zinc , ICP, test portion 2006.0... (0.063%)	0300	0.0620	0.0000	0.0675	0.0078	0.0020	2	-0.71	4%	0
321.32	Acid Soluble Zinc , ICP, test portion 2006.0... (0.063%)	0394	0.0730	0.0040	0.0675	0.0078	0.0020	2	0.71	4%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.0... (0.063%)	0037	0.0530*	0.0000	0.0760	0.0089	0.0030	7	-2.60	15%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.0... (0.063%)	0515	0.0705	0.0002	0.0760	0.0089	0.0030	7	-0.62	4%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.0... (0.063%)	0023	0.0725	0.0030	0.0760	0.0089	0.0030	7	-0.40	2%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.0... (0.063%)	0494	0.0753	0.0015	0.0760	0.0089	0.0030	7	-0.09	0%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.0... (0.063%)	0177	0.0775	0.0016	0.0760	0.0089	0.0030	7	0.17	1%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.0... (0.063%)	0136	0.0925	0.0050	0.0760	0.0089	0.0030	7	1.86	11%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.0... (0.063%)	0486	0.2450	0.0100	0.0760	0.0089	0.0030	7	19.08	111%	0
321.99	Acid Soluble Zinc , Other (0.063%)	0506	0.0550*	0.0100	0.0712	0.0141	0.0051	8	-1.15	11%	0
321.99	Acid Soluble Zinc , Other (0.063%)	0512	0.0568*	0.0111	0.0712	0.0141	0.0051	8	-1.03	10%	0
321.99	Acid Soluble Zinc , Other (0.063%)	0487	0.0670	0.0020	0.0712	0.0141	0.0051	8	-0.30	3%	0
321.99	Acid Soluble Zinc , Other (0.063%)	0042	0.0675	0.0050	0.0712	0.0141	0.0051	8	-0.26	3%	0
321.99	Acid Soluble Zinc , Other (0.063%)	0220	0.0700	0.0020	0.0712	0.0141	0.0051	8	-0.09	1%	0
321.99	Acid Soluble Zinc , Other (0.063%)	0027	0.0795	0.0010	0.0712	0.0141	0.0051	8	0.59	6%	0
321.99	Acid Soluble Zinc , Other (0.063%)	0515	0.0845	0.0087	0.0712	0.0141	0.0051	8	0.94	9%	0
321.99	Acid Soluble Zinc , Other (0.063%)	0389	0.0895	0.0009	0.0712	0.0141	0.0051	8	1.29	13%	0
325.30	Water Soluble Zinc , ICP (%)	0444	0.0690	0.0020			0.0020	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

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				

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.