

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Methods: 163

Sample # 170411

Statistical Summary

Labs Reporting: 94

Grade 15-15-15 + Micros

Issue Date : 05/31/2017

Method Code	Analyte & Method	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Analyte Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	IA %RSD	Average Range (R-bar)	Horwitz %RSD
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	9	9	6.035	0.4160	6.035		0.4717	0.1966	7.82%		0.0756	3.05%
001.99	Ammoniacal Nitrogen, Other (%)	12	11	6.180	0.5034	6.180		0.5708	0.2151	9.24%		0.0881	3.04%
002.20	Nitrate Nitrogen, Jones Modified (%)	1		2.210									
002.99	Nitrate Nitrogen, Other (%)	4	4	0.0470	0.0161	0.0470		0.0161	0.0101	34.31%		0.0020	6.34%
003.10	Water Insoluble Nitrogen, Method I (%)	6	6	3.210	0.1895	3.210		0.2149	0.1097	6.70%		0.0522	3.36%
003.99	Water Insoluble Nitrogen, Other (%)	1		3.160									
005.00	Urea Nitrogen, Urease (as N) (%)	3	3	6.961	4.271	6.961		4.271	3.082	61.36%		0.3438	2.99%
005.99	Urea Nitrogen, Other (%)	5	5	9.743	2.316	9.743		2.316	1.295	23.77%		0.1020	2.84%
007.99	Urea, Other (%)	1		9.845									
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	2	2	11.23	7.014								
010.11	Total Nitrogen, Modified Comprehensive (15%)	9	9	18.47	1.922	18.55	0.7292	1.994	0.8309	10.75%	1.97%	0.1447	2.58%
010.12	Total Nitrogen, Salicylic (15%)	3	3	19.35	0.6358	19.35	0.7292	0.6358	0.4588	3.29%	1.88%	0.1867	2.56%
010.16	Total Nitrogen, Raney (15%)	1		19.79									
010.60	Total Nitrogen, Combustion (15%)	62	58	20.05	0.3983	20.10	0.7292	0.2578	0.0423	1.28%	1.81%	0.1181	2.55%
010.99	Total Nitrogen, Other (15%)	9	9	18.74	2.132	19.40	0.7292	0.9516	0.3965	4.90%	1.88%	0.1483	2.56%
020.10	Total Phosphorus as P2O5, Gravimetric Quinolinium ... (%)	6	6	17.69	1.206	18.00		0.5812	0.2966	3.23%		0.1033	2.59%
020.20	Total Phosphorus as P2O5, Spectrophotometric Molyb... (%)	20	20	17.39	1.865	17.97		0.3561	0.0995	1.98%		0.1391	2.59%
020.40	Total Phosphorus as P2O5, Automated (%)	4	4	17.97	0.2448	17.97		0.2448	0.1530	1.36%		0.1575	2.59%
020.50	Total Phosphorus as P2O5, ICP (%)	20	19	17.71	1.405	17.75		1.502	0.4307	8.46%		0.1972	2.59%
020.99	Total Phosphorus as P2O5, Other (%)	5	5	16.02	1.338	16.02		1.338	0.7480	8.35%		0.2517	2.63%
030.10	Citrate Insoluble Phosphorus as P2O5, Gravimetric ... (%)	1		17.70									
030.20	Citrate Insoluble Phosphorus as P2O5, Spectrophoto... (%)	1		0.0750									
030.40	Citrate Insoluble Phosphorus as P2O5, Automated, t... (%)	1		0.1350									
040.20	Indirect Available Phosphorus as P2O5, Spectrophot... (15%)	1		18.21									
040.40	Indirect Available Phosphorus as P2O5, Automated (15%)	1		18.06									
040.99	Indirect Available Phosphorus as P2O5, Other (15%)	1		17.70									
041.10	Direct Available Phosphorus as P2O5, Gravimetric Q... (15%)	7	7	17.89	0.2511	17.89	0.7095	0.2848	0.1345	1.59%	1.98%	0.1017	2.59%
041.11	Direct Available Phosphorus as P2O5, Gravimetric Q... (15%)	4	4	17.53	1.538	17.53	0.7095	1.538	0.9615	8.77%	2.02%	0.2025	2.60%
041.20	Direct Available Phosphorus as P2O5, Spectrophotom... (15%)	1		17.24									
041.21	Direct Available Phosphorus as P2O5, Spectrophotom... (15%)	3	3	18.03	0.4761	18.03	0.7095	0.4761	0.3436	2.64%	1.97%	0.4433	2.59%
041.40	Direct Available Phosphorus as P2O5, Automated (15%)	3	3	25.31	11.64	25.31	0.7095	11.64	8.403	46.01%	1.40%	0.5300	2.46%

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041.50	Direct Available Phosphorus as P2O5, ICP (15%)	9	9	17.76	0.7166	17.76	0.7095	0.8127	0.3386	4.58%	2.00%	0.2229	2.59%
041.51	Direct Available Phosphorus as P2O5, ICP, Citrate-... (15%)	6	6	17.18	2.040	17.61	0.7095	1.195	0.6101	6.79%	2.01%	0.2367	2.60%
041.60	Direct Available Phosphorus as P2O5, Citrate-EDTA ... (15%)	15	14	18.11	0.8139	17.98	0.7095	0.5298	0.1770	2.95%	1.97%	0.2209	2.59%
041.99	Direct Available Phosphorus as P2O5, Other (15%)	1		15.03									
048.20	Water Soluble Phosphorus as P2O5, Spectrophotometr... (%)	5	5	12.76	1.973	12.76		1.973	1.103	15.46%		0.2272	2.73%
048.40	Water Soluble Phosphorus as P2O5, Automated (%)	1		14.22									
048.50	Water Soluble Phosphorus as P2O5, ICP (%)	1		14.63									
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	8	8	2.895	0.9310	2.637	0.4100	0.2984	0.1319	11.32%	7.77%	0.1050	3.46%
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	7	7	2.479	0.3373	2.474	0.4100	0.3716	0.1756	15.02%	8.29%	0.0879	3.49%
050.31	Soluble Potassium as K2O, AA (Citrate) (15%)	1		2.440									
050.32	Soluble Potassium as K2O, AA (Citrate-EDTA) (15%)	1		2.345									
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	9	9	2.512	0.2376	2.535	0.4100	0.2136	0.0890	8.43%	8.09%	0.0896	3.48%
050.51	Soluble Potassium as K2O, ICP (Citrate) (15%)	5	5	2.511	0.1191	2.511	0.4100	0.1191	0.0666	4.74%	8.16%	0.0340	3.48%
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	11	10	2.482	0.1869	2.466	0.4100	0.1237	0.0489	5.02%	8.31%	0.0271	3.49%
050.60	Soluble Potassium as K2O, Flame Photometric (Oxala	4	4	6.334	8.145	6.334	0.4100	8.145	5.091	128.60%	3.24%	0.1525	3.03%
050.61	Soluble Potassium as K2O, Flame Photometric (Citra..	4	4	2.403	0.1759	2.403	0.4100	0.1759	0.1100	7.32%	8.53%	0.1000	3.51%
050.62	Soluble Potassium as K2O, Flame Photometric (Citra..	4	4	2.226	0.2272	2.226	0.4100	0.2272	0.1420	10.20%	9.21%	0.1025	3.55%
050.99	Soluble Potassium as K2O, Other (15%)	24	23	4.170	4.397	2.565	0.4100	0.2718	0.0709	10.60%	7.99%	0.0682	3.47%
060.00	Water (Free), Vacuum Oven (%)	4	4	2.872	0.5079	2.872		0.5079	0.3174	17.68%		0.0793	3.41%
060.99	Water (Free), Other (%)	2	2	2.601	0.3444								
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (%)	2	2	0.2693	0.0081								
101.03	Acid Soluble Calcium, AA, 965.09, test portion 200... (	1		0.4125									
101.30	Acid Soluble Calcium, ICP, test portion inorganic ... (%)	9	8	0.3577	0.0973	0.3553		0.0222	0.0098	6.26%		0.0198	4.67%
101.32	Acid Soluble Calcium, ICP, test portion 2006.03A-C (%)	2	2	0.3360	0.0474								
101.33	Acid Soluble Calcium, ICP, test portion 2006.03A-C... (	8	8	0.3340	0.0459	0.3435		0.0262	0.0116	7.62%		0.0049	4.70%
101.99	Acid Soluble Calcium, Other (%)	2	2	0.2987	0.0656								
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1.2%)	10	10	2.633	0.2198	2.630	0.3359	0.2242	0.0886	8.52%	6.39%	0.0365	3.46%
121.03	Acid Soluble Magnesium, AA, 965.09, test portion 2...	1		2.695									
121.30	Acid Soluble Magnesium, ICP, test portion inorgani... (	18	17	2.700	0.3769	2.755	0.3359	0.1282	0.0389	4.65%	6.10%	0.0733	3.43%
121.32	Acid Soluble Magnesium, ICP, test portion 2006.03A...	4	4	2.810	0.0973	2.810	0.3359	0.0973	0.0608	3.46%	5.98%	0.0320	3.42%
121.33	Acid Soluble Magnesium, ICP, test portion 2006.03A...	16	16	2.687	0.2243	2.695	0.3359	0.1404	0.0439	5.21%	6.23%	0.0943	3.45%
121.70	Acid Soluble Magnesium, Titrimetric (EDTA) (1.2%)	1		4.365									
121.99	Acid Soluble Magnesium, Other (1.2%)	10	9	2.487	0.8611	2.484	0.3359	0.9709	0.4046	39.08%	6.76%	0.0505	3.49%
131.00	Water Soluble Magnesium, AA (%)	2	2	0.9355	0.4320								
131.30	Water Soluble Magnesium, ICP (%)	6	6	1.307	0.4804	1.307		0.5447	0.2780	41.67%		0.1049	3.84%
131.70	Water Soluble Magnesium, Titrimetric (EDTA) (%)	1		2.293									
143.00	Elemental Sulfur, Gravimetric Sulfur - carbon disu... (%)	1		0.2000									
143.99	Elemental Sulfur, Other (%)	2	2	4.685	0.2828								
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulfur - ... (%)	8	8	4.755	0.3913	4.778		0.3899	0.1723	8.16%		0.0589	3.16%
145.99	Sulfate Sulfur, HCl soluble, Other (%)	1		4.610									
146.99	Total Sulfur in Liquid, Other (%)	1		4.651									
148.00	Total Sulfur, Combustion (2%)	5	5	4.845	0.1423	4.845	0.4287	0.1423	0.0795	2.94%	4.42%	0.1292	3.15%

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148.01	Total Sulfur, Gravimetric - sulfate and elemental... (2%	14	14	4.497	1.753	4.239	0.4287	1.144	0.3823	27.00%	5.06%	0.0852	3.22%
148.04	Total Sulfur, ICP, w/Br digestion (2%)	1		4.420									
148.07	Total Sulfur, ICP, test portion as in 2006.03 modi... (2%	12	12	4.695	0.2804	4.712	0.4287	0.2768	0.0999	5.87%	4.55%	0.1021	3.17%
148.99	Total Sulfur, Other (2%)	13	13	4.307	0.8619	4.470	0.4287	0.5561	0.1928	12.44%	4.80%	0.1377	3.19%
149.04	Sulfur - HNO3 soluble, ICP (%)	3	3	4.771	0.2044	4.771		0.2044	0.1475	4.29%		0.1004	3.16%
151.00	Acid Soluble Arsenic , AA, test portion as in 2006... (p	2	2	6.660	4.936								
151.30	Acid Soluble Arsenic , ICP (ppm)	7	6	9.189	2.077	9.189		2.355	1.202	25.63%		0.3413	11.46%
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified w/9:3... (	5	5	10.16	0.9668	10.16		0.9668	0.5405	9.51%		0.9659	11.28%
151.34	Acid Soluble Arsenic , ICP, EPA 3050B/6010C (ppm)	1		10.62									
151.99	Acid Soluble Arsenic , Other (ppm)	2	2	7.535	1.393								
165.00	Acid Soluble Boron , Spectrophotometric (0.08%)	6	6	0.2258	0.1033	0.2467	0.0449	0.0644	0.0329	26.12%	9.11%	0.0107	4.94%
165.30	Acid Soluble Boron , ICP, test portion in 982.01 ... (0.0	13	13	0.2590	0.0757	0.2745	0.0449	0.0381	0.0132	13.89%	8.18%	0.0111	4.86%
165.99	Acid Soluble Boron , Other (0.08%)	19	18	0.3178	0.1511	0.2917	0.0449	0.0385	0.0114	13.21%	7.70%	0.0100	4.81%
171.10	Water Soluble Boron , Spectrophotometric (%)	2	2	0.2680	0.0290								
171.99	Water Soluble Boron , Other (%)	5	5	0.2962	0.0332	0.2962		0.0332	0.0185	11.19%		0.0072	4.80%
181.00	Acid Soluble Cadmium , AA, test portion as in 2006... (	2	2	5.465	0.1626								
181.30	Acid Soluble Cadmium , ICP (ppm)	11	10	4.618	1.115	4.592		1.086	0.4294	23.66%		0.2698	12.72%
181.32	Acid Soluble Cadmium , ICP, 2006.03 (ppm)	1		5.725									
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified w/9:3..	5	5	5.506	0.4754	5.506		0.4754	0.2658	8.63%		0.5568	12.37%
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	1		4.160									
181.99	Acid Soluble Cadmium , Other (ppm)	3	3	6.163	0.4329	6.163		0.4329	0.3124	7.02%		0.0467	12.17%
190.00	Water Soluble Chlorine, Titrimetric (%)	1		0.2150									
191.00	Acid Soluble Chromium , AA, test portion as in 200... (i	1		73.90									
191.30	Acid Soluble Chromium , ICP (ppm)	11	10	76.23	14.36	76.26		16.21	6.408	21.26%		3.397	8.33%
191.32	Acid Soluble Chromium , ICP, 2006.03 (ppm)	1		95.73									
191.33	Acid Soluble Chromium , ICP, 2006.03 modified w/9:3... (i	5	5	98.70	4.632	98.70		4.632	2.590	4.69%		2.892	8.01%
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C (ppm)	1		100.5									
191.99	Acid Soluble Chromium , Other (ppm)	2	2	69.19	32.27								
202.00	Acid Soluble Cobalt , AA, test portion as in 2006.... (pp	1		20.00									
202.30	Acid Soluble Cobalt , ICP (ppm)	9	8	29.14	6.363	29.14		7.216	3.189	24.76%		1.368	9.63%
202.32	Acid Soluble Cobalt , ICP, 2006.03 (ppm)	2	2	36.00	5.010								
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w/9:3 ... (i	6	6	37.62	1.525	37.62		1.729	0.8825	4.60%		1.143	9.27%
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	2	2	33.17	4.473								
202.99	Acid Soluble Cobalt , Other (ppm)	2	2	28.20	4.886								
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.5%)	8	8	0.5788	0.0449	0.5809	0.0657	0.0461	0.0204	7.94%	5.66%	0.0101	4.34%
221.03	Acid Soluble Copper , AA, 965.09, test portion 200... (i	1		0.6230									
221.30	Acid Soluble Copper , ICP, test portion inorganic ... (0.	18	17	0.6257	0.0386	0.6257	0.0657	0.0356	0.0108	5.69%	5.25%	0.0155	4.29%
221.32	Acid Soluble Copper , ICP, test portion 2006.03A-C... (	4	4	0.6308	0.1326	0.6308	0.0657	0.1326	0.0829	21.02%	5.21%	0.0093	4.29%
221.33	Acid Soluble Copper , ICP, test portion 2006.03A-C... (	15	14	0.6078	0.0256	0.6099	0.0657	0.0237	0.0079	3.88%	5.39%	0.0162	4.31%
221.99	Acid Soluble Copper , Other (0.5%)	12	11	0.5825	0.0545	0.5871	0.0657	0.0491	0.0185	8.37%	5.60%	0.0237	4.33%
241.00	Acid Soluble Iron, AA, inorganic 965.09 (1.6%)	7	7	2.345	0.4724	2.345	0.2477	0.5358	0.2531	22.85%	5.28%	0.0437	3.52%
241.03	Acid Soluble Iron, AA, 965.09, test portion 2006.0... (1.	1		2.346									

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241.30	Acid Soluble Iron, ICP, test portion inorganic 965... (1.6%)	18	17	2.451	0.3103	2.515	0.2477	0.1817	0.0551	7.22%	4.92%	0.0933	3.48%
241.32	Acid Soluble Iron, ICP, test portion 2006.03A-C (1.6%)	4	4	2.283	0.4892	2.283	0.2477	0.4892	0.3057	21.43%	5.43%	0.0325	3.53%
241.33	Acid Soluble Iron, ICP, test portion 2006.03A-C, w... (1.6%)	16	15	2.570	0.1575	2.562	0.2477	0.1117	0.0360	4.36%	4.83%	0.1061	3.47%
241.99	Acid Soluble Iron, Other (1.6%)	11	10	1.835	0.5649	1.835	0.2477	0.6406	0.2532	34.92%	6.75%	0.0947	3.65%
251.00	Acid Soluble Lead , AA, test portion as in 2006.03... (ppm)	2	2	19.40	9.829								
251.30	Acid Soluble Lead , ICP (ppm)	12	11	27.23	5.244	27.15		5.782	2.179	21.30%		1.434	9.73%
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9:3 HN...	6	6	32.82	0.9697	32.82		1.100	0.5612	3.35%		2.016	9.46%
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	1		34.40									
251.99	Acid Soluble Lead , Other (ppm)	2	2	28.66	1.188								
261.00	Acid Soluble Manganese , AA, Mn2+ only (1%)	1		1.230									
261.11	Acid Soluble Manganese , AA, total Mn (1%)	1		0.9650									
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (1%)	6	6	1.191	0.1414	1.205	0.1270	0.1247	0.0636	10.35%	5.27%	0.0142	3.89%
261.15	Acid Soluble Manganese , AA, 965.09, test portion ... (1%)	1		1.304									
261.30	Acid Soluble Manganese , ICP, test portion 972.02a (1%)	11	10	1.246	0.0895	1.251	0.1270	0.0890	0.0352	7.11%	5.07%	0.0301	3.87%
261.31	Acid Soluble Manganese , ICP, test portion 972.02b (1%)	5	5	1.284	0.0703	1.284	0.1270	0.0703	0.0393	5.47%	4.94%	0.0308	3.85%
261.32	Acid Soluble Manganese , ICP, test portion inorgan...	3	3	4,284	7,418	4,284	0.1270	7,418	5,354	173.15%	0.00%	33.34	1.14%
261.34	Acid Soluble Manganese , ICP, test portion 2006.03...	4	4	1.232	0.0829	1.232	0.1270	0.0829	0.0518	6.73%	5.15%	0.0100	3.88%
261.35	Acid Soluble Manganese , ICP, test portion 2006.03...	16	16	1.212	0.0542	1.210	0.1270	0.0549	0.0172	4.54%	5.25%	0.0370	3.89%
261.99	Acid Soluble Manganese , Other (1%)	11	11	1.138	0.1249	1.138	0.1270	0.1417	0.0534	12.45%	5.58%	0.0250	3.92%
271.00	Water Soluble Manganese , AA (%)	1		0.9080									
271.30	Water Soluble Manganese , ICP, Ext. 972.03 (%)	6	5	0.0762	0.0466	0.0762		0.0466	0.0261	61.21%		0.0069	5.89%
281.30	Acid Soluble Mercury , ICP (ppm)	6	5	0.0744	0.0171	0.0744		0.0171	0.0095	22.97%		0.0171	23.65%
281.99	Acid Soluble Mercury , Other (ppm)	1		0.0100									
289.30	Acid Soluble Molybdenum , ICP (50ppm)	9	8	1,308	151.8	1,329	388.5148	118.5	52.35	8.91%	14.62%	22.56	5.42%
289.32	Acid Soluble Molybdenum , ICP, 2006.03 (50ppm)	2	2	693.8	981.0								
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modified w/...	9	8	1,024	638.9	1,024	388.5148	724.6	320.2	70.76%	18.97%	27.20	5.64%
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010C (50ppm)	3	3	1,550	88.56	1,550	388.5148	88.56	63.91	5.71%	12.53%	82.26	5.30%
289.99	Acid Soluble Molybdenum , Other (50ppm)	2	2	616.0	801.2								
291.00	Acid Soluble Nickel , AA, test portion as in 2006.... (ppm)	2	2	102.5	4.950								
291.30	Acid Soluble Nickel , ICP (ppm)	12	11	84.50	15.10	84.50		17.13	6.455	20.27%		3.487	8.20%
291.32	Acid Soluble Nickel , ICP, 2006.03 (ppm)	1		106.0									
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w/9:3 ... (ppm)	6	6	102.9	4.038	102.9		4.579	2.337	4.45%		2.205	7.96%
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	2	2	86.05	19.53								
291.99	Acid Soluble Nickel , Other (ppm)	2	2	82.73	18.07								
301.30	Acid Soluble Selenium , ICP (ppm)	4	3	2.761	3.563	2.761		3.563	2.572	129.06%		0.0832	13.73%
301.33	Acid Soluble Selenium , ICP, 2006.03 modified w/9:3 ... (ppm)	4	4	6.044	3.333	6.044		3.333	2.083	55.14%		3.486	12.20%
301.34	Acid Soluble Selenium , ICP, EPA 3050B/6010C (ppm)	1		1.753									
301.99	Acid Soluble Selenium , Other (ppm)	3	3	3.917	6.139	3.917		6.139	4.431	156.75%		0.0187	13.03%
311.32	Sodium, ICP, 2006.03 test portion (%)	2	2	0.5022	0.0173								
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl test .	3	3	0.5788	0.0629	0.5788		0.0629	0.0454	10.86%		0.0137	4.34%
311.99	Sodium, Other (%)	4	4	0.4878	0.0997	0.4878		0.0997	0.0623	20.43%		0.0176	4.46%
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (1%)	8	8	1.490	0.3632	1.391	0.1499	0.1220	0.0539	8.78%	5.39%	0.0469	3.81%

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
321.03	Acid Soluble Zinc , AA, 965.09, test portion 2006.... (1%	1		1.449									
321.30	Acid Soluble Zinc , ICP, test portion inorganic 96... (1%	20	19	1.499	0.0891	1.500	0.1499	0.0977	0.0280	6.52%	5.00%	0.0375	3.76%
321.32	Acid Soluble Zinc , ICP, test portion 2006.03A-C (1%	4	4	1.493	0.3430	1.493	0.1499	0.3430	0.2143	22.98%	5.02%	0.0155	3.77%
321.33	Acid Soluble Zinc , ICP, test portion 2006.03A-C, ... (1%	16	15	1.427	0.0984	1.441	0.1499	0.0694	0.0224	4.82%	5.20%	0.0494	3.79%
321.99	Acid Soluble Zinc , Other (1%)	11	10	1.396	0.2563	1.396	0.1499	0.2907	0.1149	20.82%	5.37%	0.0449	3.80%
325.30	Water Soluble Zinc , ICP (%)	5	5	0.6010	0.8095	0.6010		0.8095	0.4525	134.71%		0.0204	4.32%

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 170411

Grade 15-15-15 + Micros

Method Precision Report

Issue Date : 05/31/2017

Method Code	Analyte & Method	# Tests Submitted	# Tests Used in Precision Calcs	Mean	SD	Between Labs sL	Within Labs sr	Reproducibility SR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	9	8	6.008	0.4367	0.4354	0.0468	0.4379	7.25%	0.78%	7.29%	9.349
001.99	Ammoniacal Nitrogen, Other (%)	12	10	6.205	0.5236	0.5218	0.0612	0.5254	8.41%	0.99%	8.47%	8.579
010.11	Total Nitrogen, Modified Comprehensive (15%)	9	8	18.31	1.990	1.989	0.0984	1.991	10.86%	0.54%	10.88%	20.24
010.60	Total Nitrogen, Combustion (15%)	62	56	20.10	0.3009	0.2901	0.1132	0.3114	1.44%	0.56%	1.55%	2.752
010.99	Total Nitrogen, Other (15%)	9	8	18.61	2.239	2.238	0.1115	2.240	12.02%	0.60%	12.04%	20.09
020.20	Total Phosphorus as P2O5, Spectrophotometric MolybdovanadoP (%)	20	19	17.74	1.012	1.008	0.1391	1.017	5.68%	0.78%	5.73%	7.310
020.50	Total Phosphorus as P2O5, ICP (%)	20	19	17.71	1.405	1.400	0.1725	1.411	7.91%	0.97%	7.97%	8.178
041.50	Direct Available Phosphorus as P2O5, ICP (15%)	9	9	17.76	0.7166	0.7022	0.2026	0.7308	3.95%	1.14%	4.11%	3.607
041.60	Direct Available Phosphorus as P2O5, Citrate-EDTA Ext. (15%)	15	13	17.95	0.5720	0.5563	0.1881	0.5872	3.10%	1.05%	3.27%	3.122
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	9	9	2.512	0.2376	0.2302	0.0834	0.2449	9.16%	3.32%	9.75%	2.935
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	11	8	2.424	0.1222	0.1217	0.0144	0.1226	5.02%	0.60%	5.06%	8.488
050.99	Soluble Potassium as K2O, Other (15%)	24	21	3.067	2.550	2.550	0.0617	2.551	83.13%	2.01%	83.16%	41.34
101.30	Acid Soluble Calcium, ICP, test portion inorganic 965.09 (%)	9	8	0.3577	0.0973	0.0962	0.0202	0.0983	26.90%	5.65%	27.49%	4.866
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1.2%)	10	10	2.633	0.2198	0.2187	0.0318	0.2210	8.31%	1.21%	8.39%	6.958
121.30	Acid Soluble Magnesium, ICP, test portion inorganic 965.09 (1.2%)	18	15	2.790	0.1646	0.1605	0.0517	0.1686	5.75%	1.85%	6.04%	3.263
121.33	Acid Soluble Magnesium, ICP, test portion 2006.03A-C, w/dual acid (1.2%)	16	15	2.726	0.1663	0.1529	0.0926	0.1787	5.61%	3.40%	6.56%	1.930
121.99	Acid Soluble Magnesium, Other (1.2%)	10	9	2.487	0.8611	0.8606	0.0422	0.8616	34.60%	1.70%	34.65%	20.39
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulfur - sulfate form (%)	8	8	4.755	0.3913	0.3899	0.0471	0.3927	8.20%	0.99%	8.26%	8.334
148.01	Total Sulfur, Gravimetric - sulfate and elemental (2%)	14	13	4.095	0.9395	0.9381	0.0726	0.9409	22.91%	1.77%	22.98%	12.96
148.07	Total Sulfur, ICP, test portion as in 2006.03 modified w/9:3 HNO3:HCl (2%)	12	11	4.749	0.2162	0.2097	0.0743	0.2225	4.41%	1.56%	4.68%	2.993
148.99	Total Sulfur, Other (2%)	13	12	4.491	0.5733	0.5654	0.1341	0.5811	12.59%	2.99%	12.94%	4.334
165.30	Acid Soluble Boron , ICP, test portion in 982.01 (0.08%)	13	11	0.2807	0.0332	0.0326	0.0085	0.0337	11.63%	3.03%	12.02%	3.960
165.99	Acid Soluble Boron , Other (0.08%)	19	16	0.2842	0.0442	0.0439	0.0072	0.0445	15.44%	2.53%	15.65%	6.192
181.30	Acid Soluble Cadmium , ICP (ppm)	11	10	4.618	1.115	1.102	0.2389	1.127	23.86%	5.17%	24.41%	4.720
191.30	Acid Soluble Chromium , ICP (ppm)	11	10	76.23	14.36	14.23	2.684	14.48	18.67%	3.52%	19.00%	5.396
202.30	Acid Soluble Cobalt , ICP (ppm)	9	8	29.14	6.363	6.321	1.027	6.404	21.69%	3.52%	21.98%	6.235
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.5%)	8	8	0.5788	0.0449	0.0445	0.0086	0.0453	7.69%	1.48%	7.83%	5.291
221.30	Acid Soluble Copper , ICP, test portion inorganic 965.09 (0.5%)	18	16	0.6260	0.0398	0.0388	0.0129	0.0409	6.19%	2.07%	6.53%	3.160
221.33	Acid Soluble Copper , ICP, test portion 2006.03A-C, w/dual acid (0.5%)	15	12	0.6116	0.0194	0.0177	0.0111	0.0209	2.90%	1.82%	3.42%	1.884
221.99	Acid Soluble Copper , Other (0.5%)	12	9	0.5953	0.0406	0.0397	0.0120	0.0415	6.67%	2.02%	6.97%	3.458

Method Code	Analyte & Method	# Tests Submitted	# Tests Used in Precision Calcs	Mean	SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
241.30	Acid Soluble Iron, ICP, test portion inorganic 965.09 (1.6%)	18	15	2.507	0.2164	0.2099	0.0745	0.2227	8.37%	2.97%	8.88%	2.989
241.33	Acid Soluble Iron, ICP, test portion 2006.03A-C, w/dual acid (1.6%)	16	14	2.540	0.1104	0.0910	0.0884	0.1269	3.58%	3.48%	4.99%	1.436
241.99	Acid Soluble Iron, Other (1.6%)	11	10	1.835	0.5649	0.5616	0.0867	0.5682	30.61%	4.73%	30.97%	6.553
251.30	Acid Soluble Lead , ICP (ppm)	12	11	27.23	5.244	5.141	1.463	5.345	18.88%	5.37%	19.63%	3.653
261.30	Acid Soluble Manganese , ICP, test portion 972.02a (1%)	11	10	1.246	0.0895	0.0872	0.0283	0.0917	7.00%	2.27%	7.36%	3.240
261.35	Acid Soluble Manganese , ICP, test portion 2006.03A-C, w/dual acid (1%)	16	16	1.212	0.0542	0.0487	0.0336	0.0592	4.02%	2.77%	4.89%	1.761
261.99	Acid Soluble Manganese , Other (1%)	11	10	1.118	0.1109	0.1101	0.0187	0.1117	9.85%	1.67%	9.99%	5.987
291.30	Acid Soluble Nickel , ICP (ppm)	12	11	84.50	15.10	14.93	3.267	15.28	17.66%	3.87%	18.08%	4.677
321.30	Acid Soluble Zinc , ICP, test portion inorganic 965.09 (1%)	20	19	1.499	0.0891	0.0855	0.0356	0.0926	5.70%	2.37%	6.18%	2.602
321.33	Acid Soluble Zinc , ICP, test portion 2006.03A-C, w/dual acid (1%)	16	14	1.449	0.0560	0.0463	0.0447	0.0643	3.19%	3.09%	4.44%	1.439
321.99	Acid Soluble Zinc , Other (1%)	11	10	1.396	0.2563	0.2543	0.0459	0.2584	18.21%	3.29%	18.51%	5.627

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

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Methods: 163

Sample # 170411

Lab Values

Labs Reporting: 94

Grade 15-15-15 + Micros

Issue Date : 05/31/2017

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 (%)	0230	5.480	0.0600	6.035	0.4717	0.0756	9	-1.09	5%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0498	5.550	0.1000	6.035	0.4717	0.0756	9	-0.95	4%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0177	5.768	0.0104	6.035	0.4717	0.0756	9	-0.52	2%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0444	5.795	0.0500	6.035	0.4717	0.0756	9	-0.47	2%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0231	6.070	0.1000	6.035	0.4717	0.0756	9	0.07	0%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0389	6.240	0.0000	6.035	0.4717	0.0756	9	0.40	2%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0486	6.245	0.2300	6.035	0.4717	0.0756	9	0.41	2%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0309	6.470	0.0800	6.035	0.4717	0.0756	9	0.85	4%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0405	6.695	0.0500	6.035	0.4717	0.0756	9	1.29	5%	0
001.99	Ammoniacal Nitrogen, Other (%)	0368	5.411	0.2029	6.180	0.5708	0.0881	11	-1.35	6%	0
001.99	Ammoniacal Nitrogen, Other (%)	0394	5.517	0.0230	6.180	0.5708	0.0881	11	-1.16	5%	0
001.99	Ammoniacal Nitrogen, Other (%)	0027	5.925	0.0300	6.180	0.5708	0.0881	11	-0.45	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0420	5.935	0.3500	6.180	0.5708	0.0881	11	-0.43	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0096	6.090	0.0200	6.180	0.5708	0.0881	11	-0.16	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0524	6.141	0.0774	6.180	0.5708	0.0881	11	-0.07	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0510	6.215	0.0057	6.180	0.5708	0.0881	11	0.06	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0522	6.360	0.0400	6.180	0.5708	0.0881	11	0.31	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0423	6.440	0.1200	6.180	0.5708	0.0881	11	0.45	2%	0
001.99	Ammoniacal Nitrogen, Other (%)	0529	6.940	0.1000	6.180	0.5708	0.0881	11	1.33	6%	0
001.99	Ammoniacal Nitrogen, Other (%)	0220	7.010	0.0000	6.180	0.5708	0.0881	11	1.45	7%	0
001.99	Ammoniacal Nitrogen, Other (%)	0501	6.147	2.253	6.180	0.5708	0.0881	11	-0.06	0%	1
002.20	Nitrate Nitrogen, Jones Modified (%)	0230	2.210	0.5800				1			0
002.99	Nitrate Nitrogen, Other (%)	0423	0.0240	0.0020	0.0470	0.0161	0.0020	4	-1.43	24%	0
002.99	Nitrate Nitrogen, Other (%)	0394	0.0480	0.0020	0.0470	0.0161	0.0020	4	0.06	1%	0
002.99	Nitrate Nitrogen, Other (%)	0486	0.0560	0.0040	0.0470	0.0161	0.0020	4	0.56	10%	0
002.99	Nitrate Nitrogen, Other (%)	0220	0.0600	0.0000	0.0470	0.0161	0.0020	4	0.81	14%	0
003.10	Water Insoluble Nitrogen, Method I (%)	0423	2.985	0.0100	3.210	0.2149	0.0522	6	-0.93	4%	0
003.10	Water Insoluble Nitrogen, Method I (%)	0027	2.990	0.1000	3.210	0.2149	0.0522	6	-0.91	3%	0
003.10	Water Insoluble Nitrogen, Method I (%)	0494	3.245	0.0500	3.210	0.2149	0.0522	6	0.14	1%	0
003.10	Water Insoluble Nitrogen, Method I (%)	0029	3.258	0.0630	3.210	0.2149	0.0522	6	0.20	1%	0
003.10	Water Insoluble Nitrogen, Method I (%)	0230	3.320	0.0600	3.210	0.2149	0.0522	6	0.45	2%	0
003.10	Water Insoluble Nitrogen, Method I (%)	0220	3.465	0.0300	3.210	0.2149	0.0522	6	1.06	4%	0
003.99	Water Insoluble Nitrogen, Other (%)	0486	3.160	0.1600				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				
005.00	Urea Nitrogen, Urease (as N) (%)	0368	2.122	0.1313	6.961	4.271	0.3438	3	-1.13	35%	0
005.00	Urea Nitrogen, Urease (as N) (%)	0230	8.555	0.5300	6.961	4.271	0.3438	3	0.37	11%	0
005.00	Urea Nitrogen, Urease (as N) (%)	0444	10.21	0.3700	6.961	4.271	0.3438	3	0.76	23%	0
005.99	Urea Nitrogen, Other (%)	0486	5.715	0.0300	9.743	2.316	0.1020	5	-1.74	21%	0
005.99	Urea Nitrogen, Other (%)	0394	10.35	0.0200	9.743	2.316	0.1020	5	0.26	3%	0
005.99	Urea Nitrogen, Other (%)	0027	10.47	0.1300	9.743	2.316	0.1020	5	0.31	4%	0
005.99	Urea Nitrogen, Other (%)	0420	10.50	0.2000	9.743	2.316	0.1020	5	0.33	4%	0
005.99	Urea Nitrogen, Other (%)	0309	11.69	0.1300	9.743	2.316	0.1020	5	0.84	10%	0
007.99	Urea, Other (%)	0220	9.845	0.1100				1			0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0309	6.270	0.0400				2			0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0200	16.19	0.0400				2			0
010.11	Total Nitrogen, Modified Comprehensive (15%)	0500	14.83*	0.0200	18.55	1.994	0.1447	9	-1.72	10%	0
010.11	Total Nitrogen, Modified Comprehensive (15%)	0455	16.33*	0.1500	18.55	1.994	0.1447	9	-1.03	6%	0
010.11	Total Nitrogen, Modified Comprehensive (15%)	0371	17.02*	0.2600	18.55	1.994	0.1447	9	-0.71	4%	0
010.11	Total Nitrogen, Modified Comprehensive (15%)	0309	18.91*	0.0500	18.55	1.994	0.1447	9	0.16	1%	0
010.11	Total Nitrogen, Modified Comprehensive (15%)	0529	19.49	0.0500	18.55	1.994	0.1447	9	0.43	3%	0
010.11	Total Nitrogen, Modified Comprehensive (15%)	0114	19.75	0.4800	18.55	1.994	0.1447	9	0.56	3%	0
010.11	Total Nitrogen, Modified Comprehensive (15%)	0510	19.81	0.0126	18.55	1.994	0.1447	9	0.58	3%	0
010.11	Total Nitrogen, Modified Comprehensive (15%)	0105	20.01	0.0400	18.55	1.994	0.1447	9	0.68	4%	0
010.11	Total Nitrogen, Modified Comprehensive (15%)	0456	20.08	0.2400	18.55	1.994	0.1447	9	0.71	4%	0
010.12	Total Nitrogen, Salicylic (15%)	0498	18.70*	0.4000	19.35	0.6358	0.1867	3	-1.03	2%	0
010.12	Total Nitrogen, Salicylic (15%)	0185	19.39	0.1400	19.35	0.6358	0.1867	3	0.06	0%	0
010.12	Total Nitrogen, Salicylic (15%)	0416	19.97	0.0200	19.35	0.6358	0.1867	3	0.97	2%	0
010.16	Total Nitrogen, Raney (15%)	0300	19.79	0.0240				1			0
010.60	Total Nitrogen, Combustion (15%)	0457	18.55*	0.1000	20.10	0.2578	0.1181	58	-6.00	4%	0
010.60	Total Nitrogen, Combustion (15%)	0420	18.75*	0.3000	20.10	0.2578	0.1181	58	-5.22	3%	0
010.60	Total Nitrogen, Combustion (15%)	0368	19.19*	0.2950	20.10	0.2578	0.1181	58	-3.50	2%	0
010.60	Total Nitrogen, Combustion (15%)	0525	19.21*	0.0470	20.10	0.2578	0.1181	58	-3.43	2%	0
010.60	Total Nitrogen, Combustion (15%)	0444	19.34	0.3200	20.10	0.2578	0.1181	58	-2.93	2%	0
010.60	Total Nitrogen, Combustion (15%)	0137	19.72	0.3570	20.10	0.2578	0.1181	58	-1.45	1%	0
010.60	Total Nitrogen, Combustion (15%)	0421	19.74	0.0400	20.10	0.2578	0.1181	58	-1.38	1%	0
010.60	Total Nitrogen, Combustion (15%)	0041	19.75	0.0800	20.10	0.2578	0.1181	58	-1.34	1%	0
010.60	Total Nitrogen, Combustion (15%)	0035	19.78	0.2800	20.10	0.2578	0.1181	58	-1.23	1%	0
010.60	Total Nitrogen, Combustion (15%)	0472	19.84	0.0100	20.10	0.2578	0.1181	58	-1.01	1%	0
010.60	Total Nitrogen, Combustion (15%)	0018	19.90	0.0000	20.10	0.2578	0.1181	58	-0.76	0%	0
010.60	Total Nitrogen, Combustion (15%)	0443	19.92	0.0200	20.10	0.2578	0.1181	58	-0.68	0%	0
010.60	Total Nitrogen, Combustion (15%)	0043	19.94	0.0200	20.10	0.2578	0.1181	58	-0.61	0%	0
010.60	Total Nitrogen, Combustion (15%)	0234	19.95	0.1900	20.10	0.2578	0.1181	58	-0.59	0%	0
010.60	Total Nitrogen, Combustion (15%)	0482	19.95	0.1000	20.10	0.2578	0.1181	58	-0.57	0%	0
010.60	Total Nitrogen, Combustion (15%)	0086	19.99	0.3160	20.10	0.2578	0.1181	58	-0.42	0%	0
010.60	Total Nitrogen, Combustion (15%)	0105	19.99	0.0640	20.10	0.2578	0.1181	58	-0.40	0%	0
010.60	Total Nitrogen, Combustion (15%)	0523	20.00	0.0000	20.10	0.2578	0.1181	58	-0.37	0%	0
010.60	Total Nitrogen, Combustion (15%)	0354	20.01	0.0000	20.10	0.2578	0.1181	58	-0.33	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 (15%)	0034	20.03	0.0900	20.10	0.2578	0.1181	58	-0.28	0%	0
010.60	Total Nitrogen, Combustion (15%)	0231	20.03	0.0100	20.10	0.2578	0.1181	58	-0.28	0%	0
010.60	Total Nitrogen, Combustion (15%)	0037	20.04	0.0120	20.10	0.2578	0.1181	58	-0.22	0%	0
010.60	Total Nitrogen, Combustion (15%)	0136	20.04	0.0200	20.10	0.2578	0.1181	58	-0.22	0%	0
010.60	Total Nitrogen, Combustion (15%)	0233	20.05	0.1500	20.10	0.2578	0.1181	58	-0.20	0%	0
010.60	Total Nitrogen, Combustion (15%)	0451	20.06	0.3000	20.10	0.2578	0.1181	58	-0.14	0%	0
010.60	Total Nitrogen, Combustion (15%)	0291	20.07	0.0100	20.10	0.2578	0.1181	58	-0.12	0%	0
010.60	Total Nitrogen, Combustion (15%)	0042	20.07	0.0700	20.10	0.2578	0.1181	58	-0.12	0%	0
010.60	Total Nitrogen, Combustion (15%)	0106	20.09	0.2700	20.10	0.2578	0.1181	58	-0.04	0%	0
010.60	Total Nitrogen, Combustion (15%)	0007	20.10	0.0000	20.10	0.2578	0.1181	58	0.01	0%	0
010.60	Total Nitrogen, Combustion (15%)	0157	20.10	0.0000	20.10	0.2578	0.1181	58	0.01	0%	0
010.60	Total Nitrogen, Combustion (15%)	0389	20.10	0.2400	20.10	0.2578	0.1181	58	0.01	0%	0
010.60	Total Nitrogen, Combustion (15%)	0450	20.11	0.2100	20.10	0.2578	0.1181	58	0.03	0%	0
010.60	Total Nitrogen, Combustion (15%)	0131	20.13	0.0470	20.10	0.2578	0.1181	58	0.14	0%	0
010.60	Total Nitrogen, Combustion (15%)	0096	20.14	0.0100	20.10	0.2578	0.1181	58	0.15	0%	0
010.60	Total Nitrogen, Combustion (15%)	0324	20.15	0.3000	20.10	0.2578	0.1181	58	0.21	0%	0
010.60	Total Nitrogen, Combustion (15%)	0516	20.15	0.1000	20.10	0.2578	0.1181	58	0.21	0%	0
010.60	Total Nitrogen, Combustion (15%)	0485	20.18	0.0950	20.10	0.2578	0.1181	58	0.31	0%	0
010.60	Total Nitrogen, Combustion (15%)	0423	20.18	0.2000	20.10	0.2578	0.1181	58	0.32	0%	0
010.60	Total Nitrogen, Combustion (15%)	0040	20.20	0.2000	20.10	0.2578	0.1181	58	0.40	0%	0
010.60	Total Nitrogen, Combustion (15%)	0177	20.21	0.0700	20.10	0.2578	0.1181	58	0.42	0%	0
010.60	Total Nitrogen, Combustion (15%)	0405	20.21	0.0600	20.10	0.2578	0.1181	58	0.44	0%	0
010.60	Total Nitrogen, Combustion (15%)	0292	20.24	0.0100	20.10	0.2578	0.1181	58	0.54	0%	0
010.60	Total Nitrogen, Combustion (15%)	0356	20.24	0.0400	20.10	0.2578	0.1181	58	0.56	0%	0
010.60	Total Nitrogen, Combustion (15%)	0486	20.25	0.1400	20.10	0.2578	0.1181	58	0.60	0%	0
010.60	Total Nitrogen, Combustion (15%)	0527	20.25	0.2860	20.10	0.2578	0.1181	58	0.60	0%	0
010.60	Total Nitrogen, Combustion (15%)	0360	20.28	0.0000	20.10	0.2578	0.1181	58	0.71	0%	0
010.60	Total Nitrogen, Combustion (15%)	0377	20.28	0.0800	20.10	0.2578	0.1181	58	0.71	0%	0
010.60	Total Nitrogen, Combustion (15%)	0501	20.30	0.3620	20.10	0.2578	0.1181	58	0.78	1%	0
010.60	Total Nitrogen, Combustion (15%)	0055	20.33	0.1100	20.10	0.2578	0.1181	58	0.89	1%	0
010.60	Total Nitrogen, Combustion (15%)	0073	20.34	0.1700	20.10	0.2578	0.1181	58	0.92	1%	0
010.60	Total Nitrogen, Combustion (15%)	0452	20.35	0.0500	20.10	0.2578	0.1181	58	0.96	1%	0
010.60	Total Nitrogen, Combustion (15%)	0483	20.45	0.0300	20.10	0.2578	0.1181	58	1.35	1%	0
010.60	Total Nitrogen, Combustion (15%)	0025	20.49	0.2000	20.10	0.2578	0.1181	58	1.53	1%	0
010.60	Total Nitrogen, Combustion (15%)	0029	20.50	0.0300	20.10	0.2578	0.1181	58	1.55	1%	0
010.60	Total Nitrogen, Combustion (15%)	0024	20.50	0.2000	20.10	0.2578	0.1181	58	1.56	1%	0
010.60	Total Nitrogen, Combustion (15%)	0402	20.65	0.1000	20.10	0.2578	0.1181	58	2.15	1%	0
010.60	Total Nitrogen, Combustion (15%)	0406	20.68	0.0300	20.10	0.2578	0.1181	58	2.24	1%	0
010.60	Total Nitrogen, Combustion (15%)	0494	20.73	0.0100	20.10	0.2578	0.1181	58	2.44	2%	0
010.60	Total Nitrogen, Combustion (15%)	0351	19.72	0.8000	20.10	0.2578	0.1181	58	-1.46	1%	1
010.60	Total Nitrogen, Combustion (15%)	0325	20.11	1.100	20.10	0.2578	0.1181	58	0.05	0%	1
010.60	Total Nitrogen, Combustion (15%)	0230	21.40	0.8000	20.10	0.2578	0.1181	58	5.06	3%	1
010.60	Total Nitrogen, Combustion (15%)	0095	11.86*	0.1500	20.10	0.2578	0.1181	58	-31.97	21%	2

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				
010.99	Total Nitrogen, Other (15%)	0519	14.89*	0.0300	19.40	0.9516	0.1483	9	-4.38	12%	0
010.99	Total Nitrogen, Other (15%)	0476	15.12*	0.0000	19.40	0.9516	0.1483	9	-4.15	11%	0
010.99	Total Nitrogen, Other (15%)	0513	19.35	0.0900	19.40	0.9516	0.1483	9	-0.05	0%	0
010.99	Total Nitrogen, Other (15%)	0493	19.75	0.1000	19.40	0.9516	0.1483	9	0.34	1%	0
010.99	Total Nitrogen, Other (15%)	0420	19.76	0.4200	19.40	0.9516	0.1483	9	0.35	1%	0
010.99	Total Nitrogen, Other (15%)	0394	19.80	0.6000	19.40	0.9516	0.1483	9	0.39	1%	0
010.99	Total Nitrogen, Other (15%)	0522	19.84	0.0300	19.40	0.9516	0.1483	9	0.42	1%	0
010.99	Total Nitrogen, Other (15%)	0524	19.98	0.0144	19.40	0.9516	0.1483	9	0.57	2%	0
010.99	Total Nitrogen, Other (15%)	0220	20.19	0.0500	19.40	0.9516	0.1483	9	0.76	2%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0500	15.30	0.0000	18.00	0.5812	0.1033	6	-4.13	7%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0105	17.72	0.2300	18.00	0.5812	0.1033	6	-0.43	1%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0157	18.10	0.2000	18.00	0.5812	0.1033	6	0.16	0%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0493	18.10	0.1000	18.00	0.5812	0.1033	6	0.16	0%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0444	18.45	0.0900	18.00	0.5812	0.1033	6	0.69	1%	0
020.10	Total Phosphorus as P2O5, Gravimetric Quinoli... (%)	0114	18.50	0.0000	18.00	0.5812	0.1033	6	0.77	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0371	10.67	0.0700	17.97	0.3561	0.1391	20	-20.51	20%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0457	14.30	0.2000	17.97	0.3561	0.1391	20	-10.31	10%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0498	15.75	0.3000	17.97	0.3561	0.1391	20	-6.23	6%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0420	17.73	0.4500	17.97	0.3561	0.1391	20	-0.69	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0356	17.75	0.1400	17.97	0.3561	0.1391	20	-0.62	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0394	17.77	0.2240	17.97	0.3561	0.1391	20	-0.55	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0324	17.80	0.0000	17.97	0.3561	0.1391	20	-0.48	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0510	17.80	0.0082	17.97	0.3561	0.1391	20	-0.47	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0529	17.93	0.0100	17.97	0.3561	0.1391	20	-0.13	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0169	17.96	0.0800	17.97	0.3561	0.1391	20	-0.03	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0522	18.09	0.0900	17.97	0.3561	0.1391	20	0.32	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0231	18.10	0.0800	17.97	0.3561	0.1391	20	0.36	0%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0450	18.15	0.1400	17.97	0.3561	0.1391	20	0.51	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0405	18.16	0.0000	17.97	0.3561	0.1391	20	0.53	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0309	18.24	0.2100	17.97	0.3561	0.1391	20	0.74	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0516	18.26	0.0800	17.97	0.3561	0.1391	20	0.81	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0300	18.31	0.1500	17.97	0.3561	0.1391	20	0.94	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0416	18.33	0.0900	17.97	0.3561	0.1391	20	1.00	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0292	18.36	0.0000	17.97	0.3561	0.1391	20	1.09	1%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0406	18.38	0.4600	17.97	0.3561	0.1391	20	1.15	1%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0456	17.70	0.2000	17.97	0.2448	0.1575	4	-1.12	1%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0105	17.84	0.1500	17.97	0.2448	0.1575	4	-0.57	0%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0035	18.17	0.2300	17.97	0.2448	0.1575	4	0.78	1%	0
020.40	Total Phosphorus as P2O5, Automated (%)	0096	18.20	0.0500	17.97	0.2448	0.1575	4	0.90	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0501	14.75	0.2417	17.75	1.502	0.1972	19	-1.99	8%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0508	15.47	0.1800	17.75	1.502	0.1972	19	-1.52	6%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0260	15.56	0.4500	17.75	1.502	0.1972	19	-1.46	6%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0523	15.95	0.3000	17.75	1.502	0.1972	19	-1.20	5%	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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020.50	Total Phosphorus as P2O5, ICP (%)	0234	17.25	0.1700	17.75	1.502	0.1972	19	-0.33	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0472	17.27	0.2400	17.75	1.502	0.1972	19	-0.32	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0521	17.29	0.0000	17.75	1.502	0.1972	19	-0.31	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0421	17.75	0.1000	17.75	1.502	0.1972	19	0.00	0%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0389	17.80	0.2000	17.75	1.502	0.1972	19	0.03	0%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0482	18.00	0.0000	17.75	1.502	0.1972	19	0.17	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0444	18.01	0.0200	17.75	1.502	0.1972	19	0.17	1%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0368	18.39	0.1344	17.75	1.502	0.1972	19	0.43	2%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0451	18.60	0.4300	17.75	1.502	0.1972	19	0.56	2%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0157	18.65	0.3000	17.75	1.502	0.1972	19	0.60	3%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0402	18.70	0.4800	17.75	1.502	0.1972	19	0.63	3%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0423	18.78	0.0900	17.75	1.502	0.1972	19	0.68	3%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0527	18.96	0.2600	17.75	1.502	0.1972	19	0.81	3%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0483	19.61	0.0700	17.75	1.502	0.1972	19	1.24	5%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0433	19.68	0.0800	17.75	1.502	0.1972	19	1.29	5%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0524	19.36	1.526	17.75	1.502	0.1972	19	1.07	5%	1
020.99	Total Phosphorus as P2O5, Other (%)	0455	14.53	0.1500	16.02	1.338	0.2517	5	-1.12	5%	0
020.99	Total Phosphorus as P2O5, Other (%)	0476	15.22	0.1500	16.02	1.338	0.2517	5	-0.61	3%	0
020.99	Total Phosphorus as P2O5, Other (%)	0515	15.51	0.4883	16.02	1.338	0.2517	5	-0.38	2%	0
020.99	Total Phosphorus as P2O5, Other (%)	0513	17.44	0.1100	16.02	1.338	0.2517	5	1.05	4%	0
020.99	Total Phosphorus as P2O5, Other (%)	0443	17.44	0.3600	16.02	1.338	0.2517	5	1.06	4%	0
030.10	Citrate Insoluble Phosphorus as P2O5, Gravime... (%)	0444	17.70	0.2800				1			0
030.20	Citrate Insoluble Phosphorus as P2O5, Spectro... (%)	0405	0.0750	0.0100				1			0
030.40	Citrate Insoluble Phosphorus as P2O5, Automat... (%)	0096	0.1350	0.0300				1			0
040.20	Indirect Available Phosphorus as P2O5, Spectr... (15%)	0300	18.21	0.0500				1			0
040.40	Indirect Available Phosphorus as P2O5, Automa... (15%)	0096	18.06	0.0800				1			0
040.99	Indirect Available Phosphorus as P2O5, Other (15%)	0394	17.70	0.0000				1			0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (15%)	0055	17.47	0.1100	17.89	0.2848	0.1017	7	-1.35	1%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (15%)	0177	17.60	0.1828	17.89	0.2848	0.1017	7	-0.91	1%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (15%)	0086	17.93	0.0288	17.89	0.2848	0.1017	7	0.13	0%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (15%)	0494	18.05	0.0200	17.89	0.2848	0.1017	7	0.51	0%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (15%)	0040	18.05	0.1000	17.89	0.2848	0.1017	7	0.51	0%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (15%)	0105	18.07	0.0500	17.89	0.2848	0.1017	7	0.55	0%	0
041.10	Direct Available Phosphorus as P2O5, Gravimet... (15%)	0041	18.07	0.2200	17.89	0.2848	0.1017	7	0.57	1%	0
041.11	Direct Available Phosphorus as P2O5, Gravimet... (15%)	0513	15.25*	0.0700	17.53	1.538	0.2025	4	-1.49	7%	0
041.11	Direct Available Phosphorus as P2O5, Gravimet... (15%)	0185	18.03	0.2200	17.53	1.538	0.2025	4	0.32	1%	0
041.11	Direct Available Phosphorus as P2O5, Gravimet... (15%)	0220	18.31	0.0000	17.53	1.538	0.2025	4	0.51	2%	0
041.11	Direct Available Phosphorus as P2O5, Gravimet... (15%)	0485	18.54	0.5200	17.53	1.538	0.2025	4	0.66	3%	0
041.20	Direct Available Phosphorus as P2O5, Spectrop... (15%)	0027	17.24	0.0900				1			0
041.21	Direct Available Phosphorus as P2O5, Spectrop... (15%)	0522	17.58	0.1300	18.03	0.4761	0.4433	3	-0.96	1%	0
041.21	Direct Available Phosphorus as P2O5, Spectrop... (15%)	0200	18.00	0.0500	18.03	0.4761	0.4433	3	-0.08	0%	0
041.21	Direct Available Phosphorus as P2O5, Spectrop... (15%)	0106	18.53	1.150	18.03	0.4761	0.4433	3	1.04	1%	0
041.40	Direct Available Phosphorus as P2O5, Automate... (15%)	0028	18.27	0.0700	25.31	11.64	0.5300	3	-0.60	14%	0

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041.40	Direct Available Phosphorus as P2O5, Automate... (15%)	0131	18.91	0.1100	25.31	11.64	0.5300	3	-0.55	13%	0
041.40	Direct Available Phosphorus as P2O5, Automate... (15%)	0095	38.75	1.410	25.31	11.64	0.5300	3	1.15	27%	0
041.50	Direct Available Phosphorus as P2O5, ICP (15%)	0043	16.64*	0.0600	17.76	0.8127	0.2229	9	-1.28	3%	0
041.50	Direct Available Phosphorus as P2O5, ICP (15%)	0368	16.96*	0.2565	17.76	0.8127	0.2229	9	-0.91	2%	0
041.50	Direct Available Phosphorus as P2O5, ICP (15%)	0325	17.00*	0.2000	17.76	0.8127	0.2229	9	-0.87	2%	0
041.50	Direct Available Phosphorus as P2O5, ICP (15%)	0137	17.69	0.3000	17.76	0.8127	0.2229	9	-0.08	0%	0
041.50	Direct Available Phosphorus as P2O5, ICP (15%)	0494	18.10	0.4000	17.76	0.8127	0.2229	9	0.38	1%	0
041.50	Direct Available Phosphorus as P2O5, ICP (15%)	0007	18.30	0.6000	17.76	0.8127	0.2229	9	0.61	2%	0
041.50	Direct Available Phosphorus as P2O5, ICP (15%)	0233	18.32	0.0500	17.76	0.8127	0.2229	9	0.63	2%	0
041.50	Direct Available Phosphorus as P2O5, ICP (15%)	0452	18.33	0.1300	17.76	0.8127	0.2229	9	0.64	2%	0
041.50	Direct Available Phosphorus as P2O5, ICP (15%)	0291	18.54	0.0100	17.76	0.8127	0.2229	9	0.88	2%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (15%)	0423	13.19*	0.1700	17.61	1.195	0.2367	6	-3.30	13%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (15%)	0377	16.91*	0.2200	17.61	1.195	0.2367	6	-0.52	2%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (15%)	0040	17.85	0.1000	17.61	1.195	0.2367	6	0.18	1%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (15%)	0360	18.17	0.2900	17.61	1.195	0.2367	6	0.41	2%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (15%)	0117	18.37	0.3500	17.61	1.195	0.2367	6	0.56	2%	0
041.51	Direct Available Phosphorus as P2O5, ICP, Cit... (15%)	0025	18.58	0.2900	17.61	1.195	0.2367	6	0.72	3%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0354	17.02*	0.0100	17.98	0.5298	0.2209	14	-1.80	3%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0472	17.26	0.3400	17.98	0.5298	0.2209	14	-1.35	2%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0029	17.58	0.2500	17.98	0.5298	0.2209	14	-0.76	1%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0073	17.73	0.6200	17.98	0.5298	0.2209	14	-0.47	1%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0055	17.79	0.1800	17.98	0.5298	0.2209	14	-0.35	1%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0177	17.96	0.0941	17.98	0.5298	0.2209	14	-0.03	0%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0105	17.97	0.2800	17.98	0.5298	0.2209	14	-0.01	0%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0037	18.03	0.2290	17.98	0.5298	0.2209	14	0.10	0%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0231	18.06	0.0000	17.98	0.5298	0.2209	14	0.16	0%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0043	18.08	0.0400	17.98	0.5298	0.2209	14	0.19	0%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0034	18.21	0.1700	17.98	0.5298	0.2209	14	0.43	1%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0136	18.29	0.1000	17.98	0.5298	0.2209	14	0.59	1%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0486	19.42	0.3800	17.98	0.5298	0.2209	14	2.72	4%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0230	20.20	0.4000	17.98	0.5298	0.2209	14	4.20	6%	0
041.60	Direct Available Phosphorus as P2O5, Citrate... (15%)	0024	17.35	1.300	17.98	0.5298	0.2209	14	-1.18	2%	1
041.99	Direct Available Phosphorus as P2O5, Other (15%)	0519	15.03*	0.0300				1			0
048.20	Water Soluble Phosphorus as P2O5, Spectrophot... (%)	0529	9.455	0.1700	12.76	1.973	0.2272	5	-1.68	13%	0
048.20	Water Soluble Phosphorus as P2O5, Spectrophot... (%)	0394	12.41	0.1560	12.76	1.973	0.2272	5	-0.18	1%	0
048.20	Water Soluble Phosphorus as P2O5, Spectrophot... (%)	0522	13.83	0.3400	12.76	1.973	0.2272	5	0.54	4%	0
048.20	Water Soluble Phosphorus as P2O5, Spectrophot... (%)	0420	13.90	0.3200	12.76	1.973	0.2272	5	0.58	4%	0
048.20	Water Soluble Phosphorus as P2O5, Spectrophot... (%)	0309	14.21	0.1500	12.76	1.973	0.2272	5	0.73	6%	0
048.40	Water Soluble Phosphorus as P2O5, Automated (%)	0096	14.22	0.0400				1			0
048.50	Water Soluble Phosphorus as P2O5, ICP (%)	0444	14.63	0.0300				1			0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0494	2.240	0.1400	2.637	0.2984	0.1050	8	-1.22	8%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0220	2.540	0.0000	2.637	0.2984	0.1050	8	-0.30	2%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0522	2.540	0.1000	2.637	0.2984	0.1050	8	-0.30	2%	0

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050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0231	2.570	0.0200	2.637	0.2984	0.1050	8	-0.20	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0114	2.575	0.3500	2.637	0.2984	0.1050	8	-0.19	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0055	2.595	0.0700	2.637	0.2984	0.1050	8	-0.13	1%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0416	2.950	0.0000	2.637	0.2984	0.1050	8	0.96	6%	0
050.00	Soluble Potassium as K2O, STPB Oxalate (15%)	0073	5.150	0.1600	2.637	0.2984	0.1050	8	7.70	48%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0309	2.005*	0.2100	2.474	0.3716	0.0879	7	-1.14	9%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0040	2.250	0.1000	2.474	0.3716	0.0879	7	-0.54	5%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0136	2.360	0.0200	2.474	0.3716	0.0879	7	-0.28	2%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0356	2.425	0.0900	2.474	0.3716	0.0879	7	-0.12	1%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0157	2.580	0.0600	2.474	0.3716	0.0879	7	0.26	2%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0415	2.666	0.0654	2.474	0.3716	0.0879	7	0.47	4%	0
050.30	Soluble Potassium as K2O, AA (Oxalate) (15%)	0516	3.065	0.0700	2.474	0.3716	0.0879	7	1.44	12%	0
050.31	Soluble Potassium as K2O, AA (Citrate) (15%)	0472	2.440	0.0400				1			0
050.32	Soluble Potassium as K2O, AA (Citrate-EDTA) (15%)	0185	2.345	0.0300				1			0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0055	2.010*	0.0200	2.535	0.2136	0.0896	9	-2.27	10%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0106	2.355	0.0900	2.535	0.2136	0.0896	9	-0.78	4%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0292	2.355	0.0300	2.535	0.2136	0.0896	9	-0.78	4%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0157	2.530	0.0000	2.535	0.2136	0.0896	9	-0.02	0%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0086	2.566	0.2546	2.535	0.2136	0.0896	9	0.14	1%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0230	2.640	0.1200	2.535	0.2136	0.0896	9	0.46	2%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0420	2.661	0.0320	2.535	0.2136	0.0896	9	0.55	2%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0324	2.740	0.1600	2.535	0.2136	0.0896	9	0.89	4%	0
050.50	Soluble Potassium as K2O, ICP (Oxalate) (15%)	0444	2.750	0.1000	2.535	0.2136	0.0896	9	0.93	4%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (15%)	0043	2.390	0.1000	2.511	0.1191	0.0340	5	-1.02	2%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (15%)	0007	2.400	0.0000	2.511	0.1191	0.0340	5	-0.93	2%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (15%)	0483	2.500	0.0400	2.511	0.1191	0.0340	5	-0.09	0%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (15%)	0291	2.625	0.0100	2.511	0.1191	0.0340	5	0.96	2%	0
050.51	Soluble Potassium as K2O, ICP (Citrate) (15%)	0452	2.640	0.0200	2.511	0.1191	0.0340	5	1.08	3%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0354	2.180	0.0290	2.466	0.1237	0.0271	10	-2.16	6%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0485	2.315	0.0100	2.466	0.1237	0.0271	10	-1.14	3%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0360	2.440	0.0200	2.466	0.1237	0.0271	10	-0.20	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0025	2.465	0.0280	2.466	0.1237	0.0271	10	-0.01	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0377	2.465	0.0300	2.466	0.1237	0.0271	10	-0.01	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0494	2.465	0.0100	2.466	0.1237	0.0271	10	-0.01	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0117	2.488	0.0040	2.466	0.1237	0.0271	10	0.16	0%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0233	2.515	0.1020	2.466	0.1237	0.0271	10	0.37	1%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0137	2.577	0.0140	2.466	0.1237	0.0271	10	0.83	2%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0423	2.909	0.0240	2.466	0.1237	0.0271	10	3.33	9%	0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (15%)	0486	19.42	0.3800	2.466	0.1237	0.0271	10	127.44	344%	2
050.60	Soluble Potassium as K2O, Flame Photometric ... (15%)	0200	2.130	0.0200	6.334	8.145	0.1525	4	-0.52	33%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (15%)	0041	2.240	0.0200	6.334	8.145	0.1525	4	-0.50	32%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (15%)	0105	2.415	0.0300	6.334	8.145	0.1525	4	-0.48	31%	0
050.60	Soluble Potassium as K2O, Flame Photometric ... (15%)	0443	18.55	0.5400	6.334	8.145	0.1525	4	1.50	96%	0

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050.61	Soluble Potassium as K2O, Flame Photometric (... (15%)	0035	2.225	0.0500	2.403	0.1759	0.1000	4	-1.01	4%	0
050.61	Soluble Potassium as K2O, Flame Photometric (... (15%)	0024	2.285	0.2300	2.403	0.1759	0.1000	4	-0.67	2%	0
050.61	Soluble Potassium as K2O, Flame Photometric (... (15%)	0131	2.505	0.0100	2.403	0.1759	0.1000	4	0.58	2%	0
050.61	Soluble Potassium as K2O, Flame Photometric (... (15%)	0028	2.595	0.1100	2.403	0.1759	0.1000	4	1.09	4%	0
050.62	Soluble Potassium as K2O, Flame Photometric (... (15%)	0029	2.015*	0.3100	2.226	0.2272	0.1025	4	-0.93	5%	0
050.62	Soluble Potassium as K2O, Flame Photometric (... (15%)	0513	2.045*	0.0300	2.226	0.2272	0.1025	4	-0.80	4%	0
050.62	Soluble Potassium as K2O, Flame Photometric (... (15%)	0034	2.410	0.0400	2.226	0.2272	0.1025	4	0.81	4%	0
050.62	Soluble Potassium as K2O, Flame Photometric (... (15%)	0105	2.435	0.0300	2.226	0.2272	0.1025	4	0.92	5%	0
050.99	Soluble Potassium as K2O, Other (15%)	0523	2.150	0.1000	2.565	0.2718	0.0682	23	-1.53	8%	0
050.99	Soluble Potassium as K2O, Other (15%)	0043	2.185	0.0500	2.565	0.2718	0.0682	23	-1.40	7%	0
050.99	Soluble Potassium as K2O, Other (15%)	0325	2.200	0.0000	2.565	0.2718	0.0682	23	-1.34	7%	0
050.99	Soluble Potassium as K2O, Other (15%)	0476	2.385	0.1700	2.565	0.2718	0.0682	23	-0.66	4%	0
050.99	Soluble Potassium as K2O, Other (15%)	0096	2.430	0.0200	2.565	0.2718	0.0682	23	-0.50	3%	0
050.99	Soluble Potassium as K2O, Other (15%)	0493	2.450	0.1000	2.565	0.2718	0.0682	23	-0.42	2%	0
050.99	Soluble Potassium as K2O, Other (15%)	0498	2.450	0.1000	2.565	0.2718	0.0682	23	-0.42	2%	0
050.99	Soluble Potassium as K2O, Other (15%)	0482	2.455	0.0900	2.565	0.2718	0.0682	23	-0.41	2%	0
050.99	Soluble Potassium as K2O, Other (15%)	0394	2.473	0.0240	2.565	0.2718	0.0682	23	-0.34	2%	0
050.99	Soluble Potassium as K2O, Other (15%)	0433	2.480	0.0000	2.565	0.2718	0.0682	23	-0.31	2%	0
050.99	Soluble Potassium as K2O, Other (15%)	0451	2.495	0.0100	2.565	0.2718	0.0682	23	-0.26	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0524	2.542	0.0238	2.565	0.2718	0.0682	23	-0.09	0%	0
050.99	Soluble Potassium as K2O, Other (15%)	0521	2.558	0.0000	2.565	0.2718	0.0682	23	-0.03	0%	0
050.99	Soluble Potassium as K2O, Other (15%)	0177	2.588	0.0298	2.565	0.2718	0.0682	23	0.08	0%	0
050.99	Soluble Potassium as K2O, Other (15%)	0527	2.610	0.0400	2.565	0.2718	0.0682	23	0.16	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0389	2.625	0.0100	2.565	0.2718	0.0682	23	0.22	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0402	2.640	0.2200	2.565	0.2718	0.0682	23	0.28	1%	0
050.99	Soluble Potassium as K2O, Other (15%)	0234	2.685	0.0500	2.565	0.2718	0.0682	23	0.44	2%	0
050.99	Soluble Potassium as K2O, Other (15%)	0300	2.700	0.0800	2.565	0.2718	0.0682	23	0.50	3%	0
050.99	Soluble Potassium as K2O, Other (15%)	0444	3.155	0.1500	2.565	0.2718	0.0682	23	2.17	11%	0
050.99	Soluble Potassium as K2O, Other (15%)	0455	14.16	0.0800	2.565	0.2718	0.0682	23	42.65	226%	0
050.99	Soluble Potassium as K2O, Other (15%)	0519	14.90	0.0200	2.565	0.2718	0.0682	23	45.37	240%	0
050.99	Soluble Potassium as K2O, Other (15%)	0457	16.60	0.2000	2.565	0.2718	0.0682	23	51.63	274%	0
050.99	Soluble Potassium as K2O, Other (15%)	0450	2.400	0.3600	2.565	0.2718	0.0682	23	-0.61	3%	1
060.00	Water (Free), Vacuum Oven (%)	0007	2.360	0.0200	2.872	0.5079	0.0793	4	-1.01	9%	0
060.00	Water (Free), Vacuum Oven (%)	0456	2.650	0.1000	2.872	0.5079	0.0793	4	-0.44	4%	0
060.00	Water (Free), Vacuum Oven (%)	0096	2.930	0.0400	2.872	0.5079	0.0793	4	0.11	1%	0
060.00	Water (Free), Vacuum Oven (%)	0416	3.550	0.1571	2.872	0.5079	0.0793	4	1.33	12%	0
060.99	Water (Free), Other (%)	0510	2.358	0.0080				2			0
060.99	Water (Free), Other (%)	0513	2.845	0.0900				2			0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (%)	0105	0.2635	0.0030				2			0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (%)	0457	0.2750	0.0100				2			0
101.03	Acid Soluble Calcium, AA, 965.09, test portio... (%)	0105	0.4125	0.0190				1			0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0420	0.1838	0.0042	0.3553	0.0222	0.0198	8	-7.05	24%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0035	0.3395	0.0050	0.3553	0.0222	0.0198	8	-0.65	2%	0

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101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0482	0.3500	0.0000	0.3553	0.0222	0.0198	8	-0.22	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0096	0.3530	0.0200	0.3553	0.0222	0.0198	8	-0.10	0%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0354	0.3595	0.0270	0.3553	0.0222	0.0198	8	0.17	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0472	0.3600	0.0000	0.3553	0.0222	0.0198	8	0.19	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0041	0.3700	0.0600	0.3553	0.0222	0.0198	8	0.60	2%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0483	0.5460	0.0420	0.3553	0.0222	0.0198	8	7.84	27%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (%)	0324	0.4050	0.2100	0.3553	0.0222	0.0198	8	2.04	7%	1
101.32	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0423	0.3025	0.0150				2			0
101.32	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0521	0.3695	0.0000				2			0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0106	0.2284	0.0016	0.3435	0.0262	0.0049	8	-4.02	17%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0421	0.3290	0.0000	0.3435	0.0262	0.0049	8	-0.51	2%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0034	0.3340	0.0000	0.3435	0.0262	0.0049	8	-0.33	1%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0055	0.3400	0.0000	0.3435	0.0262	0.0049	8	-0.12	1%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0117	0.3432	0.0161	0.3435	0.0262	0.0049	8	-0.01	0%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0494	0.3562	0.0185	0.3435	0.0262	0.0049	8	0.44	2%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0028	0.3600	0.0000	0.3435	0.0262	0.0049	8	0.58	2%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006.... (%)	0527	0.3815	0.0030	0.3435	0.0262	0.0049	8	1.33	6%	0
101.99	Acid Soluble Calcium, Other (%)	0501	0.2523	0.0046				2			0
101.99	Acid Soluble Calcium, Other (%)	0389	0.3450	0.0100				2			0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (1.2%)	0457	2.250*	0.0400	2.630	0.2242	0.0365	10	-1.58	7%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (1.2%)	0513	2.385	0.0100	2.630	0.2242	0.0365	10	-1.02	5%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (1.2%)	0029	2.524	0.0210	2.630	0.2242	0.0365	10	-0.44	2%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (1.2%)	0498	2.550	0.1000	2.630	0.2242	0.0365	10	-0.33	2%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (1.2%)	0040	2.650	0.0600	2.630	0.2242	0.0365	10	0.08	0%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (1.2%)	0485	2.686	0.0120	2.630	0.2242	0.0365	10	0.23	1%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (1.2%)	0309	2.725	0.0300	2.630	0.2242	0.0365	10	0.39	2%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (1.2%)	0105	2.733	0.0220	2.630	0.2242	0.0365	10	0.43	2%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (1.2%)	0169	2.790	0.0200	2.630	0.2242	0.0365	10	0.66	3%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 ... (1.2%)	0157	3.035	0.0500	2.630	0.2242	0.0365	10	1.68	8%	0
121.03	Acid Soluble Magnesium, AA, 965.09, test port... (1.2%)	0105	2.695	0.0130				1			0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0420	1.370*	0.0468	2.755	0.1282	0.0733	17	-10.80	25%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0354	2.509	0.0990	2.755	0.1282	0.0733	17	-1.92	4%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0360	2.635	0.0700	2.755	0.1282	0.0733	17	-0.93	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0324	2.665	0.3700	2.755	0.1282	0.0733	17	-0.70	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0035	2.680	0.0400	2.755	0.1282	0.0733	17	-0.58	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0291	2.695	0.0500	2.755	0.1282	0.0733	17	-0.46	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0096	2.715	0.1500	2.755	0.1282	0.0733	17	-0.31	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0114	2.750	0.0200	2.755	0.1282	0.0733	17	-0.04	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0450	2.780	0.0400	2.755	0.1282	0.0733	17	0.20	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0234	2.795	0.1500	2.755	0.1282	0.0733	17	0.32	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0482	2.795	0.0500	2.755	0.1282	0.0733	17	0.32	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0157	2.800	0.0000	2.755	0.1282	0.0733	17	0.36	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0433	2.824	0.0010	2.755	0.1282	0.0733	17	0.54	1%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0444	2.835	0.0300	2.755	0.1282	0.0733	17	0.63	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0024	2.840	0.0000	2.755	0.1282	0.0733	17	0.67	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0483	2.950	0.1000	2.755	0.1282	0.0733	17	1.53	4%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0472	3.255	0.0300	2.755	0.1282	0.0733	17	3.91	9%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1.2%)	0041	2.670	0.5400	2.755	0.1282	0.0733	17	-0.66	2%	1
121.32	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0300	2.706	0.0230	2.810	0.0973	0.0320	4	-1.07	2%	0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0521	2.786	0.0000	2.810	0.0973	0.0320	4	-0.24	0%	0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0423	2.808	0.0050	2.810	0.0973	0.0320	4	-0.02	0%	0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0394	2.940	0.1000	2.810	0.0973	0.0320	4	1.34	2%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0486	2.100*	0.0200	2.695	0.1404	0.0943	16	-4.24	11%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0515	2.460	0.1998	2.695	0.1404	0.0943	16	-1.68	4%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0037	2.483	0.0530	2.695	0.1404	0.0943	16	-1.51	4%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0034	2.647	0.0190	2.695	0.1404	0.0943	16	-0.34	1%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0025	2.656	0.0290	2.695	0.1404	0.0943	16	-0.28	1%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0421	2.690	0.0400	2.695	0.1404	0.0943	16	-0.03	0%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0106	2.693	0.2864	2.695	0.1404	0.0943	16	-0.01	0%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0055	2.705	0.0300	2.695	0.1404	0.0943	16	0.07	0%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0028	2.710	0.1800	2.695	0.1404	0.0943	16	0.11	0%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0233	2.747	0.1390	2.695	0.1404	0.0943	16	0.37	1%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0177	2.750	0.0272	2.695	0.1404	0.0943	16	0.39	1%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0117	2.754	0.0980	2.695	0.1404	0.0943	16	0.42	1%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0220	2.770	0.0000	2.695	0.1404	0.0943	16	0.54	1%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0494	2.783	0.1934	2.695	0.1404	0.0943	16	0.63	2%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0136	2.855	0.1700	2.695	0.1404	0.0943	16	1.14	3%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1.2%)	0527	3.194	0.0240	2.695	0.1404	0.0943	16	3.56	9%	0
121.70	Acid Soluble Magnesium, Titrimetric (EDTA) (1.2%)	0529	4.365	0.0700				1			0
121.99	Acid Soluble Magnesium, Other (1.2%)	0519	1.200*	0.0200	2.484	0.9709	0.0505	9	-1.22	26%	0
121.99	Acid Soluble Magnesium, Other (1.2%)	0501	1.470*	0.0895	2.484	0.9709	0.0505	9	-0.96	20%	0
121.99	Acid Soluble Magnesium, Other (1.2%)	0042	1.835*	0.0700	2.484	0.9709	0.0505	9	-0.62	13%	0
121.99	Acid Soluble Magnesium, Other (1.2%)	0515	2.569	0.0738	2.484	0.9709	0.0505	9	0.08	2%	0
121.99	Acid Soluble Magnesium, Other (1.2%)	0523	2.600	0.0000	2.484	0.9709	0.0505	9	0.11	2%	0
121.99	Acid Soluble Magnesium, Other (1.2%)	0389	2.800	0.0400	2.484	0.9709	0.0505	9	0.30	6%	0
121.99	Acid Soluble Magnesium, Other (1.2%)	0368	2.821	0.0223	2.484	0.9709	0.0505	9	0.32	7%	0
121.99	Acid Soluble Magnesium, Other (1.2%)	0027	3.124	0.0980	2.484	0.9709	0.0505	9	0.61	13%	0
121.99	Acid Soluble Magnesium, Other (1.2%)	0415	3.964	0.0409	2.484	0.9709	0.0505	9	1.41	30%	0
121.99	Acid Soluble Magnesium, Other (1.2%)	0524	2.941	0.3019	2.484	0.9709	0.0505	9	0.43	9%	1
131.00	Water Soluble Magnesium, AA (%)	0309	0.6300	0.0400				2			0
131.00	Water Soluble Magnesium, AA (%)	0029	1.241	0.0460				2			0
131.30	Water Soluble Magnesium, ICP (%)	0300	0.5489	0.0392	1.307	0.5447	0.1049	6	-1.24	29%	0
131.30	Water Soluble Magnesium, ICP (%)	0394	1.010	0.0200	1.307	0.5447	0.1049	6	-0.49	11%	0
131.30	Water Soluble Magnesium, ICP (%)	0230	1.305	0.0100	1.307	0.5447	0.1049	6	0.00	0%	0
131.30	Water Soluble Magnesium, ICP (%)	0220	1.385	0.1500	1.307	0.5447	0.1049	6	0.13	3%	0
131.30	Water Soluble Magnesium, ICP (%)	0444	1.755	0.2900	1.307	0.5447	0.1049	6	0.73	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				
131.30	Water Soluble Magnesium, ICP (%)	0027	1.840	0.1200	1.307	0.5447	0.1049	6	0.87	20%	0
131.70	Water Soluble Magnesium, Titrimetric (EDTA) (%)	0510	2.293	0.0038				1			0
143.00	Elemental Sulfur, Gravimetric Sulfur - carbon... (%)	0220	0.2000	0.0000				1			0
143.99	Elemental Sulfur, Other (%)	0472	4.485	0.0100				2			0
143.99	Elemental Sulfur, Other (%)	0389	4.885	0.0300				2			0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0498	4.010	0.0800	4.778	0.3899	0.0589	8	-1.80	8%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0233	4.474	0.1110	4.778	0.3899	0.0589	8	-0.72	3%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0106	4.515	0.0700	4.778	0.3899	0.0589	8	-0.62	3%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0522	4.870	0.0200	4.778	0.3899	0.0589	8	0.21	1%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0485	4.895	0.0700	4.778	0.3899	0.0589	8	0.27	1%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0027	5.050	0.0400	4.778	0.3899	0.0589	8	0.64	3%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0043	5.095	0.0100	4.778	0.3899	0.0589	8	0.74	3%	0
145.00	Sulfate Sulfur, HCl soluble, Gravimetric Sulf... (%)	0220	5.135	0.0700	4.778	0.3899	0.0589	8	0.84	4%	0
145.99	Sulfate Sulfur, HCl soluble, Other (%)	0444	4.610	0.2000				1			0
146.99	Total Sulfur in Liquid, Other (%)	0131	4.651	0.0510				1			0
148.00	Total Sulfur, Combustion (2%)	0420	4.700	0.2000	4.845	0.1423	0.1292	5	-1.02	1%	0
148.00	Total Sulfur, Combustion (2%)	0029	4.763	0.0220	4.845	0.1423	0.1292	5	-0.58	1%	0
148.00	Total Sulfur, Combustion (2%)	0025	4.820	0.0600	4.845	0.1423	0.1292	5	-0.18	0%	0
148.00	Total Sulfur, Combustion (2%)	0157	4.870	0.0200	4.845	0.1423	0.1292	5	0.17	0%	0
148.00	Total Sulfur, Combustion (2%)	0451	5.073	0.3440	4.845	0.1423	0.1292	5	1.60	2%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0513	2.365*	0.0100	4.239	1.144	0.0852	14	-1.64	22%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0457	2.615*	0.0700	4.239	1.144	0.0852	14	-1.42	19%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0073	3.425*	0.1100	4.239	1.144	0.0852	14	-0.71	10%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0177	3.518*	0.0222	4.239	1.144	0.0852	14	-0.63	9%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0510	3.544*	0.0004	4.239	1.144	0.0852	14	-0.61	8%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0029	3.725*	0.0100	4.239	1.144	0.0852	14	-0.45	6%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0230	4.725	0.2300	4.239	1.144	0.0852	14	0.42	6%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0105	4.815	0.1100	4.239	1.144	0.0852	14	0.50	7%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0157	4.815	0.1500	4.239	1.144	0.0852	14	0.50	7%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0324	4.855	0.0500	4.239	1.144	0.0852	14	0.54	7%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0485	4.895	0.0700	4.239	1.144	0.0852	14	0.57	8%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0055	4.940	0.1200	4.239	1.144	0.0852	14	0.61	8%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0114	5.000	0.1000	4.239	1.144	0.0852	14	0.66	9%	0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (2%)	0231	9.720	0.1400	4.239	1.144	0.0852	14	4.79	65%	0
148.04	Total Sulfur, ICP, w/Br digestion (2%)	0394	4.420	0.0400				1			0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (2%)	0515	4.091*	0.3818	4.712	0.2768	0.1021	12	-2.24	7%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (2%)	0486	4.305	0.0100	4.712	0.2768	0.1021	12	-1.47	4%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (2%)	0444	4.610	0.0800	4.712	0.2768	0.1021	12	-0.37	1%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (2%)	0037	4.612	0.1070	4.712	0.2768	0.1021	12	-0.36	1%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (2%)	0117	4.631	0.0960	4.712	0.2768	0.1021	12	-0.29	1%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (2%)	0177	4.678	0.0453	4.712	0.2768	0.1021	12	-0.12	0%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (2%)	0494	4.757	0.0729	4.712	0.2768	0.1021	12	0.16	0%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (2%)	0421	4.790	0.0800	4.712	0.2768	0.1021	12	0.28	1%	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
148.07	Total Sulfur, ICP, test portion as in 2006.03... (2%)	0406	4.880	0.2800	4.712	0.2768	0.1021	12	0.61	2%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (2%)	0292	4.925	0.0100	4.712	0.2768	0.1021	12	0.77	2%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (2%)	0483	4.970	0.0400	4.712	0.2768	0.1021	12	0.93	3%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (2%)	0527	5.087	0.0220	4.712	0.2768	0.1021	12	1.36	4%	0
148.99	Total Sulfur, Other (2%)	0519	2.095*	0.0100	4.470	0.5561	0.1377	13	-4.27	27%	0
148.99	Total Sulfur, Other (2%)	0501	3.027*	0.3291	4.470	0.5561	0.1377	13	-2.60	16%	0
148.99	Total Sulfur, Other (2%)	0523	4.150	0.2200	4.470	0.5561	0.1377	13	-0.58	4%	0
148.99	Total Sulfur, Other (2%)	0291	4.280	0.0800	4.470	0.5561	0.1377	13	-0.34	2%	0
148.99	Total Sulfur, Other (2%)	0354	4.347	0.2950	4.470	0.5561	0.1377	13	-0.22	1%	0
148.99	Total Sulfur, Other (2%)	0450	4.380	0.3600	4.470	0.5561	0.1377	13	-0.16	1%	0
148.99	Total Sulfur, Other (2%)	0024	4.485	0.0700	4.470	0.5561	0.1377	13	0.03	0%	0
148.99	Total Sulfur, Other (2%)	0137	4.539	0.1210	4.470	0.5561	0.1377	13	0.12	1%	0
148.99	Total Sulfur, Other (2%)	0096	4.727	0.0600	4.470	0.5561	0.1377	13	0.46	3%	0
148.99	Total Sulfur, Other (2%)	0300	4.736	0.0080	4.470	0.5561	0.1377	13	0.48	3%	0
148.99	Total Sulfur, Other (2%)	0368	4.803	0.1565	4.470	0.5561	0.1377	13	0.60	4%	0
148.99	Total Sulfur, Other (2%)	0482	5.090	0.0200	4.470	0.5561	0.1377	13	1.11	7%	0
148.99	Total Sulfur, Other (2%)	0220	5.330	0.0600	4.470	0.5561	0.1377	13	1.55	10%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0524	4.537	0.2261	4.771	0.2044	0.1004	3	-1.14	2%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0423	4.858	0.0750	4.771	0.2044	0.1004	3	0.42	1%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0521	4.918	0.0000	4.771	0.2044	0.1004	3	0.72	2%	0
151.00	Acid Soluble Arsenic , AA, test portion as in... (ppm)	0498	3.170	0.1800				2			0
151.00	Acid Soluble Arsenic , AA, test portion as in... (ppm)	0136	10.15	0.1000				2			0
151.30	Acid Soluble Arsenic , ICP (ppm)	0523	5.775	0.0700	9.189	2.355	0.3413	6	-1.29	19%	0
151.30	Acid Soluble Arsenic , ICP (ppm)	0476	8.595	0.0300	9.189	2.355	0.3413	6	-0.22	3%	0
151.30	Acid Soluble Arsenic , ICP (ppm)	0096	8.650	0.5000	9.189	2.355	0.3413	6	-0.20	3%	0
151.30	Acid Soluble Arsenic , ICP (ppm)	0394	9.500	0.2000	9.189	2.355	0.3413	6	0.12	2%	0
151.30	Acid Soluble Arsenic , ICP (ppm)	0450	11.00	0.6000	9.189	2.355	0.3413	6	0.68	10%	0
151.30	Acid Soluble Arsenic , ICP (ppm)	0501	11.62	0.6478	9.189	2.355	0.3413	6	0.92	13%	0
151.30	Acid Soluble Arsenic , ICP (ppm)	0368	3.500	4.000	9.189	2.355	0.3413	6	-2.15	31%	1
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified ... (ppm)	0117	8.942	0.2110	10.16	0.9668	0.9659	5	-1.26	6%	0
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified ... (ppm)	0037	9.349	0.6160	10.16	0.9668	0.9659	5	-0.84	4%	0
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified ... (ppm)	0515	10.57	2.542	10.16	0.9668	0.9659	5	0.42	2%	0
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified ... (ppm)	0527	10.78	0.1990	10.16	0.9668	0.9659	5	0.64	3%	0
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified ... (ppm)	0494	11.18	1.261	10.16	0.9668	0.9659	5	1.05	5%	0
151.34	Acid Soluble Arsenic , ICP, EPA 3050B/6010C (ppm)	0515	10.62	5.316				1			0
151.99	Acid Soluble Arsenic , Other (ppm)	0220	6.550	0.5000				2			0
151.99	Acid Soluble Arsenic , Other (ppm)	0519	8.520	0.0200				2			0
165.00	Acid Soluble Boron , Spectrophotometric (0.08%)	0309	0.02500*	0.0100	0.2467	0.0644	0.0107	6	-3.06	45%	0
165.00	Acid Soluble Boron , Spectrophotometric (0.08%)	0498	0.2100*	0.0000	0.2467	0.0644	0.0107	6	-0.51	7%	0
165.00	Acid Soluble Boron , Spectrophotometric (0.08%)	0220	0.2545	0.0010	0.2467	0.0644	0.0107	6	0.11	2%	0
165.00	Acid Soluble Boron , Spectrophotometric (0.08%)	0055	0.2815	0.0190	0.2467	0.0644	0.0107	6	0.48	7%	0
165.00	Acid Soluble Boron , Spectrophotometric (0.08%)	0029	0.2860	0.0180	0.2467	0.0644	0.0107	6	0.54	8%	0
165.00	Acid Soluble Boron , Spectrophotometric (0.08%)	0037	0.2980	0.0160	0.2467	0.0644	0.0107	6	0.71	10%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0394	0.03000*	0.0000	0.2745	0.0381	0.0111	13	-6.41	45%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0521	0.2037*	0.0000	0.2745	0.0381	0.0111	13	-1.86	13%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0324	0.2375	0.0150	0.2745	0.0381	0.0111	13	-0.97	7%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0136	0.2500	0.0400	0.2745	0.0381	0.0111	13	-0.64	4%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0494	0.2723	0.0010	0.2745	0.0381	0.0111	13	-0.06	0%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0354	0.2750	0.0160	0.2745	0.0381	0.0111	13	0.01	0%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0291	0.2850	0.0100	0.2745	0.0381	0.0111	13	0.28	2%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0106	0.2929	0.0228	0.2745	0.0381	0.0111	13	0.48	3%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0444	0.2950	0.0100	0.2745	0.0381	0.0111	13	0.54	4%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0040	0.3025	0.0170	0.2745	0.0381	0.0111	13	0.73	5%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0389	0.3045	0.0010	0.2745	0.0381	0.0111	13	0.79	5%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0234	0.3050	0.0100	0.2745	0.0381	0.0111	13	0.80	6%	0
165.30	Acid Soluble Boron , ICP, test portion in 982... (0.08%)	0433	0.3140	0.0020	0.2745	0.0381	0.0111	13	1.04	7%	0
165.99	Acid Soluble Boron , Other (0.08%)	0042	0.1650*	0.0100	0.2917	0.0385	0.0100	18	-3.29	22%	0
165.99	Acid Soluble Boron , Other (0.08%)	0501	0.2219*	0.0097	0.2917	0.0385	0.0100	18	-1.81	12%	0
165.99	Acid Soluble Boron , Other (0.08%)	0524	0.2490	0.0035	0.2917	0.0385	0.0100	18	-1.11	7%	0
165.99	Acid Soluble Boron , Other (0.08%)	0043	0.2650	0.0100	0.2917	0.0385	0.0100	18	-0.69	5%	0
165.99	Acid Soluble Boron , Other (0.08%)	0515	0.2730	0.0551	0.2917	0.0385	0.0100	18	-0.49	3%	0
165.99	Acid Soluble Boron , Other (0.08%)	0486	0.2750	0.0100	0.2917	0.0385	0.0100	18	-0.43	3%	0
165.99	Acid Soluble Boron , Other (0.08%)	0025	0.2770	0.0041	0.2917	0.0385	0.0100	18	-0.38	3%	0
165.99	Acid Soluble Boron , Other (0.08%)	0117	0.2837	0.0095	0.2917	0.0385	0.0100	18	-0.21	1%	0
165.99	Acid Soluble Boron , Other (0.08%)	0421	0.2935	0.0050	0.2917	0.0385	0.0100	18	0.05	0%	0
165.99	Acid Soluble Boron , Other (0.08%)	0360	0.2970	0.0000	0.2917	0.0385	0.0100	18	0.14	1%	0
165.99	Acid Soluble Boron , Other (0.08%)	0300	0.3005	0.0005	0.2917	0.0385	0.0100	18	0.23	2%	0
165.99	Acid Soluble Boron , Other (0.08%)	0423	0.3040	0.0020	0.2917	0.0385	0.0100	18	0.32	2%	0
165.99	Acid Soluble Boron , Other (0.08%)	0482	0.3050	0.0100	0.2917	0.0385	0.0100	18	0.35	2%	0
165.99	Acid Soluble Boron , Other (0.08%)	0368	0.3127	0.0057	0.2917	0.0385	0.0100	18	0.54	4%	0
165.99	Acid Soluble Boron , Other (0.08%)	0472	0.3200	0.0200	0.2917	0.0385	0.0100	18	0.73	5%	0
165.99	Acid Soluble Boron , Other (0.08%)	0527	0.3380	0.0240	0.2917	0.0385	0.0100	18	1.20	8%	0
165.99	Acid Soluble Boron , Other (0.08%)	0231	0.3400	0.0000	0.2917	0.0385	0.0100	18	1.25	8%	0
165.99	Acid Soluble Boron , Other (0.08%)	0519	0.9000	0.0000	0.2917	0.0385	0.0100	18	15.79	104%	0
165.99	Acid Soluble Boron , Other (0.08%)	0483	3,170	20.00	0.2917	0.0385	0.0100	18	82255.72	543342%	2
171.10	Water Soluble Boron , Spectrophotometric (%)	0220	0.2475	0.0030				2			0
171.10	Water Soluble Boron , Spectrophotometric (%)	0028	0.2885	0.0050				2			0
171.99	Water Soluble Boron , Other (%)	0486	0.2750	0.0100	0.2962	0.0332	0.0072	5	-0.64	4%	0
171.99	Water Soluble Boron , Other (%)	0027	0.2800	0.0060	0.2962	0.0332	0.0072	5	-0.49	3%	0
171.99	Water Soluble Boron , Other (%)	0444	0.2850	0.0100	0.2962	0.0332	0.0072	5	-0.34	2%	0
171.99	Water Soluble Boron , Other (%)	0300	0.2861	0.0000	0.2962	0.0332	0.0072	5	-0.31	2%	0
171.99	Water Soluble Boron , Other (%)	0231	0.3550	0.0100	0.2962	0.0332	0.0072	5	1.77	10%	0
181.00	Acid Soluble Cadmium , AA, test portion as in... (ppm)	0136	5.350	0.1000				2			0
181.00	Acid Soluble Cadmium , AA, test portion as in... (ppm)	0498	5.580	0.3600				2			0
181.30	Acid Soluble Cadmium , ICP (ppm)	0368	2.700	0.2000	4.592	1.086	0.2698	10	-1.62	21%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0096	3.600	0.2000	4.592	1.086	0.2698	10	-0.85	11%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
181.30	Acid Soluble Cadmium , ICP (ppm)	0444	3.910	0.2200	4.592	1.086	0.2698	10	-0.58	7%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0524	4.505	0.0206	4.592	1.086	0.2698	10	-0.07	1%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0523	4.575	0.5100	4.592	1.086	0.2698	10	-0.01	0%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0476	4.600	0.4000	4.592	1.086	0.2698	10	0.01	0%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0501	4.645	0.0477	4.592	1.086	0.2698	10	0.05	1%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0482	5.350	0.3000	4.592	1.086	0.2698	10	0.65	8%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0394	5.550	0.1000	4.592	1.086	0.2698	10	0.82	10%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0450	6.750	0.7000	4.592	1.086	0.2698	10	1.85	23%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0035	5.915	1.910	4.592	1.086	0.2698	10	1.13	14%	1
181.32	Acid Soluble Cadmium , ICP, 2006.03 (ppm)	0300	5.725	0.0410				1			0
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified ... (ppm)	0515	4.908	2.160	5.506	0.4754	0.5568	5	-1.26	5%	0
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified ... (ppm)	0037	5.280	0.2940	5.506	0.4754	0.5568	5	-0.47	2%	0
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified ... (ppm)	0117	5.422	0.0840	5.506	0.4754	0.5568	5	-0.18	1%	0
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified ... (ppm)	0494	5.764	0.0935	5.506	0.4754	0.5568	5	0.54	2%	0
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified ... (ppm)	0527	6.155	0.1520	5.506	0.4754	0.5568	5	1.37	6%	0
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	0515	4.160	5.752				1			0
181.99	Acid Soluble Cadmium , Other (ppm)	0300	5.675	0.0900	6.163	0.4329	0.0467	3	-1.13	4%	0
181.99	Acid Soluble Cadmium , Other (ppm)	0519	6.315	0.0500	6.163	0.4329	0.0467	3	0.35	1%	0
181.99	Acid Soluble Cadmium , Other (ppm)	0220	6.500	0.0000	6.163	0.4329	0.0467	3	0.78	3%	0
190.00	Water Soluble Chlorine, Titrimetric (%)	0105	0.2150	0.0100				1			0
191.00	Acid Soluble Chromium , AA, test portion as i... (ppm)	0498	73.90	5.400				1			0
191.30	Acid Soluble Chromium , ICP (ppm)	0501	51.62	2.738	76.26	16.21	3.397	10	-1.41	16%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0476	60.45	1.500	76.26	16.21	3.397	10	-0.91	10%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0444	65.77	3.830	76.26	16.21	3.397	10	-0.60	7%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0096	73.20	5.000	76.26	16.21	3.397	10	-0.18	2%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0482	76.60	6.200	76.26	16.21	3.397	10	0.02	0%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0027	78.00	2.000	76.26	16.21	3.397	10	0.10	1%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0394	78.50	4.400	76.26	16.21	3.397	10	0.13	1%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0523	87.20	0.2000	76.26	16.21	3.397	10	0.63	7%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0450	93.00	4.000	76.26	16.21	3.397	10	0.96	11%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0368	97.95	4.100	76.26	16.21	3.397	10	1.24	14%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0035	95.65	44.70	76.26	16.21	3.397	10	1.11	13%	1
191.32	Acid Soluble Chromium , ICP, 2006.03 (ppm)	0300	95.73	0.8800				1			0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0037	95.55	0.9140	98.70	4.632	2.892	5	-0.68	2%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0117	95.71	0.8800	98.70	4.632	2.892	5	-0.65	2%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0494	96.91	2.955	98.70	4.632	2.892	5	-0.39	1%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0515	98.64	7.063	98.70	4.632	2.892	5	-0.01	0%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0527	106.7	2.650	98.70	4.632	2.892	5	1.72	4%	0
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C (ppm)	0515	100.5	0.0050				1			0
191.99	Acid Soluble Chromium , Other (ppm)	0519	46.37	0.0600				2			0
191.99	Acid Soluble Chromium , Other (ppm)	0220	92.00	2.000				2			0
202.00	Acid Soluble Cobalt , AA, test portion as in ... (ppm)	0498	20.00	0.0000				1			0
202.30	Acid Soluble Cobalt , ICP (ppm)	0096	18.77	1.050	29.14	7.216	1.368	8	-1.32	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				
202.30	Acid Soluble Cobalt , ICP (ppm)	0027	23.00	2.000	29.14	7.216	1.368	8	-0.78	11%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0476	26.70	1.000	29.14	7.216	1.368	8	-0.31	4%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0482	29.20	2.200	29.14	7.216	1.368	8	0.01	0%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0523	30.05	0.7000	29.14	7.216	1.368	8	0.12	2%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0524	32.11	1.596	29.14	7.216	1.368	8	0.38	5%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0368	34.45	1.100	29.14	7.216	1.368	8	0.67	9%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0450	38.85	1.300	29.14	7.216	1.368	8	1.23	17%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0035	31.45	8.100	29.14	7.216	1.368	8	0.29	4%	1
202.32	Acid Soluble Cobalt , ICP, 2006.03 (ppm)	0423	32.46	0.0900				2			0
202.32	Acid Soluble Cobalt , ICP, 2006.03 (ppm)	0300	39.54	0.4800				2			0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0233	35.59	3.900	37.62	1.729	1.143	6	-1.05	3%	0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0515	37.12	0.8903	37.62	1.729	1.143	6	-0.26	1%	0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0037	37.15	0.0190	37.62	1.729	1.143	6	-0.24	1%	0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0117	37.39	0.5200	37.62	1.729	1.143	6	-0.12	0%	0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0494	38.30	1.263	37.62	1.729	1.143	6	0.35	1%	0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0527	40.18	0.2640	37.62	1.729	1.143	6	1.32	3%	0
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	0501	30.00	1.186				2			0
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	0515	36.33	5.706				2			0
202.99	Acid Soluble Cobalt , Other (ppm)	0519	24.74	0.1200				2			0
202.99	Acid Soluble Cobalt , Other (ppm)	0220	31.65	1.700				2			0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.5%)	0513	0.4950*	0.0100	0.5809	0.0461	0.0101	8	-1.70	7%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.5%)	0457	0.5500	0.0200	0.5809	0.0461	0.0101	8	-0.61	3%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.5%)	0029	0.5592	0.0123	0.5809	0.0461	0.0101	8	-0.43	2%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.5%)	0043	0.5620	0.0040	0.5809	0.0461	0.0101	8	-0.37	2%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.5%)	0498	0.6100	0.0000	0.5809	0.0461	0.0101	8	0.58	3%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.5%)	0105	0.6160	0.0140	0.5809	0.0461	0.0101	8	0.70	3%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.5%)	0040	0.6188	0.0174	0.5809	0.0461	0.0101	8	0.75	3%	0
221.00	Acid Soluble Copper , AA, inorganic 965.09 (0.5%)	0485	0.6195	0.0030	0.5809	0.0461	0.0101	8	0.77	3%	0
221.03	Acid Soluble Copper , AA, 965.09, test portio... (0.5%)	0105	0.6230	0.0140				1			0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0324	0.5485	0.0090	0.6257	0.0356	0.0155	17	-2.17	6%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0291	0.5650	0.0100	0.6257	0.0356	0.0155	17	-1.70	5%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0041	0.5950	0.0500	0.6257	0.0356	0.0155	17	-0.86	2%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0402	0.6000	0.0000	0.6257	0.0356	0.0155	17	-0.72	2%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0234	0.6050	0.0300	0.6257	0.0356	0.0155	17	-0.58	2%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0360	0.6105	0.0050	0.6257	0.0356	0.0155	17	-0.43	1%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0444	0.6200	0.0000	0.6257	0.0356	0.0155	17	-0.16	0%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0450	0.6200	0.0600	0.6257	0.0356	0.0155	17	-0.16	0%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0157	0.6220	0.0020	0.6257	0.0356	0.0155	17	-0.11	0%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0472	0.6250	0.0300	0.6257	0.0356	0.0155	17	-0.02	0%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0354	0.6375	0.0190	0.6257	0.0356	0.0155	17	0.33	1%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0433	0.6445	0.0090	0.6257	0.0356	0.0155	17	0.53	1%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0114	0.6550	0.0100	0.6257	0.0356	0.0155	17	0.82	2%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0482	0.6550	0.0100	0.6257	0.0356	0.0155	17	0.82	2%	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0096	0.6594	0.0098	0.6257	0.0356	0.0155	17	0.94	3%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0231	0.6650	0.0100	0.6257	0.0356	0.0155	17	1.10	3%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0035	0.7090	0.0000	0.6257	0.0356	0.0155	17	2.34	7%	0
221.30	Acid Soluble Copper , ICP, test portion inorg... (0.5%)	0483	6,520	40.00	0.6257	0.0356	0.0155	17	182971.36	520928%	2
221.32	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0521	0.4642*	0.0000	0.6308	0.1326	0.0093	4	-1.26	13%	0
221.32	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0394	0.6250	0.0300	0.6308	0.1326	0.0093	4	-0.04	0%	0
221.32	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0300	0.6459	0.0012	0.6308	0.1326	0.0093	4	0.11	1%	0
221.32	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0423	0.7880	0.0060	0.6308	0.1326	0.0093	4	1.19	12%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0486	0.5450	0.0100	0.6099	0.0237	0.0162	14	-2.74	5%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0025	0.5872	0.0077	0.6099	0.0237	0.0162	14	-0.96	2%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0037	0.5915	0.0230	0.6099	0.0237	0.0162	14	-0.78	2%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0421	0.5950	0.0100	0.6099	0.0237	0.0162	14	-0.63	1%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0106	0.6002	0.0266	0.6099	0.0237	0.0162	14	-0.41	1%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0177	0.6003	0.0064	0.6099	0.0237	0.0162	14	-0.40	1%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0028	0.6050	0.0100	0.6099	0.0237	0.0162	14	-0.21	0%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0527	0.6060	0.0120	0.6099	0.0237	0.0162	14	-0.16	0%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0220	0.6135	0.0030	0.6099	0.0237	0.0162	14	0.15	0%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0233	0.6204	0.0087	0.6099	0.0237	0.0162	14	0.44	1%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0055	0.6250	0.0500	0.6099	0.0237	0.0162	14	0.64	1%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0494	0.6348	0.0156	0.6099	0.0237	0.0162	14	1.05	2%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0136	0.6400	0.0200	0.6099	0.0237	0.0162	14	1.27	2%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0117	0.6449	0.0235	0.6099	0.0237	0.0162	14	1.48	3%	0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (0.5%)	0515	0.2579*	0.4995	0.6099	0.0237	0.0162	14	-14.87	29%	1
221.99	Acid Soluble Copper , Other (0.5%)	0519	0.4600*	0.0200	0.5871	0.0491	0.0237	11	-2.59	11%	0
221.99	Acid Soluble Copper , Other (0.5%)	0476	0.5300*	0.0200	0.5871	0.0491	0.0237	11	-1.16	5%	0
221.99	Acid Soluble Copper , Other (0.5%)	0501	0.5516	0.0354	0.5871	0.0491	0.0237	11	-0.72	3%	0
221.99	Acid Soluble Copper , Other (0.5%)	0137	0.5625	0.0090	0.5871	0.0491	0.0237	11	-0.50	2%	0
221.99	Acid Soluble Copper , Other (0.5%)	0515	0.5897	0.1222	0.5871	0.0491	0.0237	11	0.05	0%	0
221.99	Acid Soluble Copper , Other (0.5%)	0027	0.6045	0.0250	0.5871	0.0491	0.0237	11	0.35	1%	0
221.99	Acid Soluble Copper , Other (0.5%)	0368	0.6054	0.0114	0.5871	0.0491	0.0237	11	0.37	2%	0
221.99	Acid Soluble Copper , Other (0.5%)	0523	0.6065	0.0010	0.5871	0.0491	0.0237	11	0.39	2%	0
221.99	Acid Soluble Copper , Other (0.5%)	0420	0.6124	0.0079	0.5871	0.0491	0.0237	11	0.51	2%	0
221.99	Acid Soluble Copper , Other (0.5%)	0389	0.6215	0.0030	0.5871	0.0491	0.0237	11	0.70	3%	0
221.99	Acid Soluble Copper , Other (0.5%)	0524	0.6635	0.0054	0.5871	0.0491	0.0237	11	1.55	7%	0
221.99	Acid Soluble Copper , Other (0.5%)	0042	0.7965	0.2490	0.5871	0.0491	0.0237	11	4.26	18%	1
241.00	Acid Soluble Iron, AA, inorganic 965.09 (1.6%)	0498	1.650*	0.1000	2.345	0.5358	0.0437	7	-1.17	15%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (1.6%)	0513	1.670*	0.0200	2.345	0.5358	0.0437	7	-1.14	14%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (1.6%)	0029	2.501	0.1220	2.345	0.5358	0.0437	7	0.26	3%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (1.6%)	0485	2.620	0.0160	2.345	0.5358	0.0437	7	0.46	6%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (1.6%)	0105	2.624	0.0080	2.345	0.5358	0.0437	7	0.47	6%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (1.6%)	0040	2.625	0.0300	2.345	0.5358	0.0437	7	0.47	6%	0
241.00	Acid Soluble Iron, AA, inorganic 965.09 (1.6%)	0043	2.725	0.0100	2.345	0.5358	0.0437	7	0.64	8%	0
241.03	Acid Soluble Iron, AA, 965.09, test portion 2... (1.6%)	0105	2.346	0.0180				1			0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0420	1.539*	0.0548	2.515	0.1817	0.0933	17	-5.37	19%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0482	1.910*	0.0800	2.515	0.1817	0.0933	17	-3.33	12%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0472	2.195	0.0700	2.515	0.1817	0.0933	17	-1.76	6%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0041	2.410	0.0800	2.515	0.1817	0.0933	17	-0.58	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0354	2.430	0.0160	2.515	0.1817	0.0933	17	-0.47	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0231	2.440	0.0000	2.515	0.1817	0.0933	17	-0.41	1%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0114	2.460	0.0400	2.515	0.1817	0.0933	17	-0.30	1%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0291	2.525	0.3100	2.515	0.1817	0.0933	17	0.05	0%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0234	2.595	0.0300	2.515	0.1817	0.0933	17	0.44	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0096	2.604	0.0730	2.515	0.1817	0.0933	17	0.49	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0433	2.610	0.0200	2.515	0.1817	0.0933	17	0.52	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0444	2.615	0.0500	2.515	0.1817	0.0933	17	0.55	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0157	2.625	0.1100	2.515	0.1817	0.0933	17	0.60	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0035	2.630	0.2600	2.515	0.1817	0.0933	17	0.63	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0324	2.645	0.1300	2.515	0.1817	0.0933	17	0.71	3%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0360	2.696	0.0720	2.515	0.1817	0.0933	17	1.00	4%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0402	2.745	0.1900	2.515	0.1817	0.0933	17	1.27	5%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (1.6%)	0483	27,850	700.0	2.515	0.1817	0.0933	17	153259.75	553599%	2
241.32	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0521	1.611*	0.0000	2.283	0.4892	0.0325	4	-1.37	15%	0
241.32	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0423	2.230	0.0400	2.283	0.4892	0.0325	4	-0.11	1%	0
241.32	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0300	2.625	0.0000	2.283	0.4892	0.0325	4	0.70	7%	0
241.32	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0394	2.665	0.0900	2.283	0.4892	0.0325	4	0.78	8%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0220	2.290	0.1800	2.562	0.1117	0.1061	15	-2.43	5%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0037	2.363	0.1100	2.562	0.1117	0.1061	15	-1.78	4%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0028	2.500	0.0600	2.562	0.1117	0.1061	15	-0.55	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0515	2.501	0.2613	2.562	0.1117	0.1061	15	-0.55	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0025	2.516	0.1450	2.562	0.1117	0.1061	15	-0.41	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0136	2.520	0.1000	2.562	0.1117	0.1061	15	-0.37	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0034	2.530	0.1000	2.562	0.1117	0.1061	15	-0.29	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0421	2.565	0.0300	2.562	0.1117	0.1061	15	0.03	0%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0117	2.568	0.0130	2.562	0.1117	0.1061	15	0.05	0%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0055	2.595	0.1100	2.562	0.1117	0.1061	15	0.30	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0177	2.611	0.1549	2.562	0.1117	0.1061	15	0.44	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0233	2.647	0.1290	2.562	0.1117	0.1061	15	0.76	2%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0494	2.661	0.0751	2.562	0.1117	0.1061	15	0.88	2%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0527	2.699	0.0430	2.562	0.1117	0.1061	15	1.22	3%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0486	2.990	0.0800	2.562	0.1117	0.1061	15	3.83	8%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (1.6%)	0106	2.324	1.098	2.562	0.1117	0.1061	15	-2.13	5%	1
241.99	Acid Soluble Iron, Other (1.6%)	0501	1.112*	0.0027	1.835	0.6406	0.0947	10	-1.05	20%	0
241.99	Acid Soluble Iron, Other (1.6%)	0137	1.215*	0.2270	1.835	0.6406	0.0947	10	-0.90	17%	0
241.99	Acid Soluble Iron, Other (1.6%)	0523	1.430*	0.1600	1.835	0.6406	0.0947	10	-0.59	11%	0
241.99	Acid Soluble Iron, Other (1.6%)	0476	1.485*	0.0500	1.835	0.6406	0.0947	10	-0.51	10%	0
241.99	Acid Soluble Iron, Other (1.6%)	0519	1.635*	0.0100	1.835	0.6406	0.0947	10	-0.29	5%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
241.99	Acid Soluble Iron, Other (1.6%)	0042	1.735*	0.1700	1.835	0.6406	0.0947	10	-0.14	3%	0
241.99	Acid Soluble Iron, Other (1.6%)	0389	2.090*	0.0200	1.835	0.6406	0.0947	10	0.37	7%	0
241.99	Acid Soluble Iron, Other (1.6%)	0515	2.469	0.1834	1.835	0.6406	0.0947	10	0.92	17%	0
241.99	Acid Soluble Iron, Other (1.6%)	0524	2.475	0.0593	1.835	0.6406	0.0947	10	0.93	17%	0
241.99	Acid Soluble Iron, Other (1.6%)	0368	2.702	0.0649	1.835	0.6406	0.0947	10	1.26	24%	0
241.99	Acid Soluble Iron, Other (1.6%)	0027	2.429	0.9090	1.835	0.6406	0.0947	10	0.86	16%	1
251.00	Acid Soluble Lead , AA, test portion as in 20... (ppm)	0498	12.45	0.5000				2			0
251.00	Acid Soluble Lead , AA, test portion as in 20... (ppm)	0136	26.35	0.3000				2			0
251.30	Acid Soluble Lead , ICP (ppm)	0394	20.00	0.4000	27.15	5.782	1.434	11	-1.24	13%	0
251.30	Acid Soluble Lead , ICP (ppm)	0096	22.75	1.900	27.15	5.782	1.434	11	-0.76	8%	0
251.30	Acid Soluble Lead , ICP (ppm)	0501	23.06	0.0069	27.15	5.782	1.434	11	-0.71	8%	0
251.30	Acid Soluble Lead , ICP (ppm)	0444	23.19	0.2100	27.15	5.782	1.434	11	-0.69	7%	0
251.30	Acid Soluble Lead , ICP (ppm)	0368	23.60	3.600	27.15	5.782	1.434	11	-0.61	7%	0
251.30	Acid Soluble Lead , ICP (ppm)	0027	27.00	0.0000	27.15	5.782	1.434	11	-0.03	0%	0
251.30	Acid Soluble Lead , ICP (ppm)	0476	27.60	0.2000	27.15	5.782	1.434	11	0.08	1%	0
251.30	Acid Soluble Lead , ICP (ppm)	0523	31.05	0.5000	27.15	5.782	1.434	11	0.67	7%	0
251.30	Acid Soluble Lead , ICP (ppm)	0524	31.58	4.461	27.15	5.782	1.434	11	0.77	8%	0
251.30	Acid Soluble Lead , ICP (ppm)	0450	33.00	2.200	27.15	5.782	1.434	11	1.01	11%	0
251.30	Acid Soluble Lead , ICP (ppm)	0482	36.65	2.300	27.15	5.782	1.434	11	1.64	17%	0
251.30	Acid Soluble Lead , ICP (ppm)	0035	146.0	84.00	27.15	5.782	1.434	11	20.55	219%	1
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0117	31.40	0.5300	32.82	1.100	2.016	6	-1.16	2%	0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0037	32.11	3.142	32.82	1.100	2.016	6	-0.58	1%	0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0494	32.63	1.350	32.82	1.100	2.016	6	-0.16	0%	0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0515	33.23	1.713	32.82	1.100	2.016	6	0.33	1%	0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0233	33.57	4.910	32.82	1.100	2.016	6	0.60	1%	0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0527	34.01	0.4500	32.82	1.100	2.016	6	0.96	2%	0
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	0515	34.40	1.098				1			0
251.99	Acid Soluble Lead , Other (ppm)	0519	27.82	0.0400				2			0
251.99	Acid Soluble Lead , Other (ppm)	0220	29.50	9.000				2			0
261.00	Acid Soluble Manganese , AA, Mn2+ only (1%)	0043	1.230	0.0200				1			0
261.11	Acid Soluble Manganese , AA, total Mn (1%)	0498	0.9650*	0.1300				1			0
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (1%)	0457	0.9300*	0.0200	1.205	0.1247	0.0142	6	-1.97	11%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (1%)	0513	1.130	0.0200	1.205	0.1247	0.0142	6	-0.54	3%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (1%)	0105	1.240	0.0140	1.205	0.1247	0.0142	6	0.25	1%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (1%)	0040	1.257	0.0250	1.205	0.1247	0.0142	6	0.37	2%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (1%)	0485	1.279	0.0000	1.205	0.1247	0.0142	6	0.53	3%	0
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (1%)	0029	1.308	0.0060	1.205	0.1247	0.0142	6	0.73	4%	0
261.15	Acid Soluble Manganese , AA, 965.09, test por... (1%)	0105	1.304	0.1100				1			0
261.30	Acid Soluble Manganese , ICP, test portion 97... (1%)	0291	1.065*	0.0100	1.251	0.0890	0.0301	10	-1.95	7%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (1%)	0420	1.188	0.0031	1.251	0.0890	0.0301	10	-0.66	3%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (1%)	0157	1.195	0.0100	1.251	0.0890	0.0301	10	-0.59	2%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (1%)	0354	1.236	0.0130	1.251	0.0890	0.0301	10	-0.17	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (1%)	0096	1.245	0.0300	1.251	0.0890	0.0301	10	-0.07	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				
261.30	Acid Soluble Manganese , ICP, test portion 97... (1%)	0433	1.247	0.0050	1.251	0.0890	0.0301	10	-0.05	0%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (1%)	0041	1.265	0.0500	1.251	0.0890	0.0301	10	0.14	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (1%)	0024	1.275	0.0300	1.251	0.0890	0.0301	10	0.25	1%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (1%)	0472	1.370	0.0800	1.251	0.0890	0.0301	10	1.24	5%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (1%)	0114	1.375	0.0700	1.251	0.0890	0.0301	10	1.29	5%	0
261.30	Acid Soluble Manganese , ICP, test portion 97... (1%)	0035	1.280	0.1600	1.251	0.0890	0.0301	10	0.30	1%	1
261.31	Acid Soluble Manganese , ICP, test portion 97... (1%)	0360	1.221	0.0140	1.284	0.0703	0.0308	5	-0.90	2%	0
261.31	Acid Soluble Manganese , ICP, test portion 97... (1%)	0231	1.260	0.0200	1.284	0.0703	0.0308	5	-0.34	1%	0
261.31	Acid Soluble Manganese , ICP, test portion 97... (1%)	0324	1.265	0.0700	1.284	0.0703	0.0308	5	-0.27	1%	0
261.31	Acid Soluble Manganese , ICP, test portion 97... (1%)	0234	1.270	0.0200	1.284	0.0703	0.0308	5	-0.20	1%	0
261.31	Acid Soluble Manganese , ICP, test portion 97... (1%)	0482	1.405	0.0300	1.284	0.0703	0.0308	5	1.72	5%	0
261.32	Acid Soluble Manganese , ICP, test portion in... (1%)	0444	1.230	0.0200	4,284	7,418	33.34	3	-0.58	50%	0
261.32	Acid Soluble Manganese , ICP, test portion in... (1%)	0402	1.335	0.0100	4,284	7,418	33.34	3	-0.58	50%	0
261.32	Acid Soluble Manganese , ICP, test portion in... (1%)	0483	12,850	100.0	4,284	7,418	33.34	3	1.15	100%	0
261.34	Acid Soluble Manganese , ICP, test portion 20... (1%)	0300	1.162	0.0100	1.232	0.0829	0.0100	4	-0.84	3%	0
261.34	Acid Soluble Manganese , ICP, test portion 20... (1%)	0521	1.190	0.0000	1.232	0.0829	0.0100	4	-0.50	2%	0
261.34	Acid Soluble Manganese , ICP, test portion 20... (1%)	0394	1.225	0.0100	1.232	0.0829	0.0100	4	-0.08	0%	0
261.34	Acid Soluble Manganese , ICP, test portion 20... (1%)	0423	1.350	0.0200	1.232	0.0829	0.0100	4	1.43	5%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0486	1.120	0.0000	1.210	0.0549	0.0370	16	-1.63	4%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0025	1.152	0.0160	1.210	0.0549	0.0370	16	-1.05	2%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0527	1.166	0.0680	1.210	0.0549	0.0370	16	-0.79	2%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0037	1.172	0.0720	1.210	0.0549	0.0370	16	-0.69	2%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0034	1.178	0.0300	1.210	0.0549	0.0370	16	-0.58	1%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0028	1.180	0.0200	1.210	0.0549	0.0370	16	-0.54	1%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0136	1.185	0.0300	1.210	0.0549	0.0370	16	-0.45	1%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0117	1.196	0.0340	1.210	0.0549	0.0370	16	-0.25	1%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0515	1.202	0.0896	1.210	0.0549	0.0370	16	-0.14	0%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0421	1.220	0.0000	1.210	0.0549	0.0370	16	0.19	0%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0233	1.244	0.0730	1.210	0.0549	0.0370	16	0.62	1%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0494	1.244	0.0481	1.210	0.0549	0.0370	16	0.63	1%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0055	1.250	0.0800	1.210	0.0549	0.0370	16	0.74	2%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0106	1.266	0.0250	1.210	0.0549	0.0370	16	1.02	2%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0177	1.281	0.0060	1.210	0.0549	0.0370	16	1.29	3%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (1%)	0220	1.330	0.0000	1.210	0.0549	0.0370	16	2.19	5%	0
261.99	Acid Soluble Manganese , Other (1%)	0501	0.9393*	0.0081	1.138	0.1417	0.0250	11	-1.31	9%	0
261.99	Acid Soluble Manganese , Other (1%)	0476	0.9985*	0.0030	1.138	0.1417	0.0250	11	-0.92	6%	0
261.99	Acid Soluble Manganese , Other (1%)	0519	1.020*	0.0000	1.138	0.1417	0.0250	11	-0.78	5%	0
261.99	Acid Soluble Manganese , Other (1%)	0137	1.064*	0.0120	1.138	0.1417	0.0250	11	-0.49	3%	0
261.99	Acid Soluble Manganese , Other (1%)	0042	1.110	0.0600	1.138	0.1417	0.0250	11	-0.18	1%	0
261.99	Acid Soluble Manganese , Other (1%)	0523	1.130	0.0200	1.138	0.1417	0.0250	11	-0.05	0%	0
261.99	Acid Soluble Manganese , Other (1%)	0515	1.196	0.0486	1.138	0.1417	0.0250	11	0.38	3%	0
261.99	Acid Soluble Manganese , Other (1%)	0027	1.214	0.0190	1.138	0.1417	0.0250	11	0.50	3%	0
261.99	Acid Soluble Manganese , Other (1%)	0389	1.240	0.0000	1.138	0.1417	0.0250	11	0.67	4%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
261.99	Acid Soluble Manganese , Other (1%)	0368	1.265	0.0043	1.138	0.1417	0.0250	11	0.84	6%	0
261.99	Acid Soluble Manganese , Other (1%)	0524	1.341	0.1001	1.138	0.1417	0.0250	11	1.34	9%	0
271.00	Water Soluble Manganese , AA (%)	0027	0.9080	0.0480				1			0
271.30	Water Soluble Manganese , ICP, Ext. 972.03 (%)	0300	0.0370	0.0004	0.0762	0.0466	0.0069	5	-0.73	26%	0
271.30	Water Soluble Manganese , ICP, Ext. 972.03 (%)	0231	0.0400	0.0200	0.0762	0.0466	0.0069	5	-0.68	24%	0
271.30	Water Soluble Manganese , ICP, Ext. 972.03 (%)	0230	0.0500	0.0000	0.0762	0.0466	0.0069	5	-0.49	17%	0
271.30	Water Soluble Manganese , ICP, Ext. 972.03 (%)	0486	0.1250	0.0100	0.0762	0.0466	0.0069	5	0.91	32%	0
271.30	Water Soluble Manganese , ICP, Ext. 972.03 (%)	0394	0.1290	0.0040	0.0762	0.0466	0.0069	5	0.99	35%	0
271.30	Water Soluble Manganese , ICP, Ext. 972.03 (%)	0444	0.3300	0.0600	0.0762	0.0466	0.0069	5	4.75	167%	1
281.30	Acid Soluble Mercury , ICP (ppm)	0394	0.0532	0.0005	0.0744	0.0171	0.0171	5	-1.08	14%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0527	0.0670	0.0120	0.0744	0.0171	0.0171	5	-0.38	5%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0450	0.0750	0.0300	0.0744	0.0171	0.0171	5	0.03	0%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0501	0.0766	0.0428	0.0744	0.0171	0.0171	5	0.11	2%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0476	0.1000	0.0000	0.0744	0.0171	0.0171	5	1.31	17%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0515	0.0000	0.0000	0.0744	0.0171	0.0171	5			4
281.99	Acid Soluble Mercury , Other (ppm)	0519	0.0100	0.0000				1			0
289.30	Acid Soluble Molybdenum , ICP (50ppm)	0521	982.5	0.0000	1,329	118.5	22.56	8	-2.68	13%	0
289.30	Acid Soluble Molybdenum , ICP (50ppm)	0524	1,250	19.45	1,329	118.5	22.56	8	-0.61	3%	0
289.30	Acid Soluble Molybdenum , ICP (50ppm)	0433	1,262	46.00	1,329	118.5	22.56	8	-0.52	3%	0
289.30	Acid Soluble Molybdenum , ICP (50ppm)	0234	1,300	0.0000	1,329	118.5	22.56	8	-0.22	1%	0
289.30	Acid Soluble Molybdenum , ICP (50ppm)	0444	1,378	28.00	1,329	118.5	22.56	8	0.38	2%	0
289.30	Acid Soluble Molybdenum , ICP (50ppm)	0096	1,426	11.00	1,329	118.5	22.56	8	0.75	4%	0
289.30	Acid Soluble Molybdenum , ICP (50ppm)	0450	1,429	62.00	1,329	118.5	22.56	8	0.77	4%	0
289.30	Acid Soluble Molybdenum , ICP (50ppm)	0368	1,436	14.00	1,329	118.5	22.56	8	0.83	4%	0
289.30	Acid Soluble Molybdenum , ICP (50ppm)	0035	1,390	304.0	1,329	118.5	22.56	8	0.47	2%	1
289.32	Acid Soluble Molybdenum , ICP, 2006.03 (50ppm)	0394	0.1450*	0.0100				2			0
289.32	Acid Soluble Molybdenum , ICP, 2006.03 (50ppm)	0300	1,388	27.00				2			0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (50ppm)	0494	0.1401*	0.0196	1,024	724.6	27.20	8	-1.29	50%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (50ppm)	0106	0.1678*	0.0066	1,024	724.6	27.20	8	-1.29	50%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (50ppm)	0486	1,153	7.000	1,024	724.6	27.20	8	0.16	6%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (50ppm)	0037	1,359	2.020	1,024	724.6	27.20	8	0.42	16%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (50ppm)	0117	1,373	39.00	1,024	724.6	27.20	8	0.44	17%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (50ppm)	0423	1,417	4.000	1,024	724.6	27.20	8	0.50	19%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (50ppm)	0233	1,418	143.0	1,024	724.6	27.20	8	0.50	19%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (50ppm)	0527	1,473	22.55	1,024	724.6	27.20	8	0.57	22%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (50ppm)	0515	645.8*	1,236	1,024	724.6	27.20	8	-0.48	18%	1
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010... (50ppm)	0515	1,456	173.8	1,550	88.56	82.26	3	-1.06	3%	0
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010... (50ppm)	0220	1,562	21.00	1,550	88.56	82.26	3	0.13	0%	0
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010... (50ppm)	0501	1,632	51.95	1,550	88.56	82.26	3	0.93	3%	0
289.99	Acid Soluble Molybdenum , Other (50ppm)	0519	49.50*	3.000				2			0
289.99	Acid Soluble Molybdenum , Other (50ppm)	0042	1,183	32.70				2			0
291.00	Acid Soluble Nickel , AA, test portion as in ... (ppm)	0498	99.00	1.600				2			0
291.00	Acid Soluble Nickel , AA, test portion as in ... (ppm)	0136	106.0	2.000				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				
291.30	Acid Soluble Nickel , ICP (ppm)	0521	60.42	0.0000	84.50	17.13	3.487	11	-1.41	14%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0444	65.96	0.2000	84.50	17.13	3.487	11	-1.08	11%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0476	73.14	1.130	84.50	17.13	3.487	11	-0.66	7%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0027	75.50	5.000	84.50	17.13	3.487	11	-0.53	5%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0523	82.60	4.400	84.50	17.13	3.487	11	-0.11	1%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0482	83.40	2.400	84.50	17.13	3.487	11	-0.06	1%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0394	84.20	0.4000	84.50	17.13	3.487	11	-0.02	0%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0524	96.04	9.325	84.50	17.13	3.487	11	0.67	7%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0450	101.0	6.000	84.50	17.13	3.487	11	0.96	10%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0368	102.0	2.000	84.50	17.13	3.487	11	1.02	10%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0096	105.3	7.500	84.50	17.13	3.487	11	1.21	12%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0035	94.60	26.80	84.50	17.13	3.487	11	0.59	6%	1
291.32	Acid Soluble Nickel , ICP, 2006.03 (ppm)	0300	106.0	5.300				1			0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0515	98.95	5.406	102.9	4.579	2.205	6	-0.76	2%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0037	99.99	1.203	102.9	4.579	2.205	6	-0.56	1%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0494	100.3	0.2490	102.9	4.579	2.205	6	-0.50	1%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0117	103.4	1.900	102.9	4.579	2.205	6	0.09	0%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0233	105.0	4.200	102.9	4.579	2.205	6	0.41	1%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0527	109.7	0.2700	102.9	4.579	2.205	6	1.32	3%	0
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	0501	72.24	0.0122				2			0
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	0515	99.86	2.014				2			0
291.99	Acid Soluble Nickel , Other (ppm)	0519	69.95	0.1400				2			0
291.99	Acid Soluble Nickel , Other (ppm)	0220	95.50	1.000				2			0
301.30	Acid Soluble Selenium , ICP (ppm)	0476	0.5000	0.0000	2.761	3.563	0.0832	3	-0.63	41%	0
301.30	Acid Soluble Selenium , ICP (ppm)	0501	0.9141	0.0660	2.761	3.563	0.0832	3	-0.52	33%	0
301.30	Acid Soluble Selenium , ICP (ppm)	0524	6.868	0.1837	2.761	3.563	0.0832	3	1.15	74%	0
301.30	Acid Soluble Selenium , ICP (ppm)	0368	1.200	2.400	2.761	3.563	0.0832	3			4
301.33	Acid Soluble Selenium , ICP, 2006.03 modified... (ppm)	0527	1.786	0.0300	6.044	3.333	3.486	4	-1.28	35%	0
301.33	Acid Soluble Selenium , ICP, 2006.03 modified... (ppm)	0494	5.416	0.2159	6.044	3.333	3.486	4	-0.19	5%	0
301.33	Acid Soluble Selenium , ICP, 2006.03 modified... (ppm)	0037	7.290	0.2790	6.044	3.333	3.486	4	0.37	10%	0
301.33	Acid Soluble Selenium , ICP, 2006.03 modified... (ppm)	0515	9.684	13.42	6.044	3.333	3.486	4	1.09	30%	0
301.34	Acid Soluble Selenium , ICP, EPA 3050B/6010C (ppm)	0515	1.753	3.505				0			4
301.99	Acid Soluble Selenium , Other (ppm)	0485	0.1300	0.0160	3.917	6.139	0.0187	3	-0.62	48%	0
301.99	Acid Soluble Selenium , Other (ppm)	0519	0.6200	0.0400	3.917	6.139	0.0187	3	-0.54	42%	0
301.99	Acid Soluble Selenium , Other (ppm)	0220	11.00	0.0000	3.917	6.139	0.0187	3	1.15	90%	0
311.32	Sodium, ICP, 2006.03 test portion (%)	0324	0.4900	0.1000				2			0
311.32	Sodium, ICP, 2006.03 test portion (%)	0521	0.5144	0.0000				2			0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0035	0.5080	0.0280	0.5788	0.0629	0.0137	3	-1.13	6%	0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0527	0.6005	0.0070	0.5788	0.0629	0.0137	3	0.34	2%	0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0423	0.6280	0.0060	0.5788	0.0629	0.0137	3	0.78	4%	0
311.99	Sodium, Other (%)	0501	0.3478	0.0172	0.4878	0.0997	0.0176	4	-1.41	14%	0
311.99	Sodium, Other (%)	0096	0.5050	0.0300	0.4878	0.0997	0.0176	4	0.17	2%	0
311.99	Sodium, Other (%)	0482	0.5150	0.0100	0.4878	0.0997	0.0176	4	0.27	3%	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
311.99	Sodium, Other (%)	0354	0.5835	0.0130	0.4878	0.0997	0.0176	4	0.96	10%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (1%)	0457	1.220*	0.0200	1.391	0.1220	0.0469	8	-1.28	6%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (1%)	0485	1.285*	0.0030	1.391	0.1220	0.0469	8	-0.79	4%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (1%)	0029	1.351	0.0060	1.391	0.1220	0.0469	8	-0.30	1%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (1%)	0513	1.400	0.0000	1.391	0.1220	0.0469	8	0.07	0%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (1%)	0105	1.422	0.1250	1.391	0.1220	0.0469	8	0.23	1%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (1%)	0040	1.424	0.0270	1.391	0.1220	0.0469	8	0.25	1%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (1%)	0498	1.450	0.1000	1.391	0.1220	0.0469	8	0.45	2%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (1%)	0428	2.368	0.0941	1.391	0.1220	0.0469	8	7.32	35%	0
321.03	Acid Soluble Zinc , AA, 965.09, test portion ... (1%)	0105	1.449	0.1310				1			0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0291	1.335	0.0100	1.500	0.0977	0.0375	19	-1.69	5%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0324	1.385	0.0500	1.500	0.0977	0.0375	19	-1.17	4%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0024	1.405	0.0500	1.500	0.0977	0.0375	19	-0.97	3%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0234	1.410	0.0200	1.500	0.0977	0.0375	19	-0.92	3%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0444	1.435	0.0300	1.500	0.0977	0.0375	19	-0.66	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0157	1.440	0.0400	1.500	0.0977	0.0375	19	-0.61	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0420	1.456	0.0033	1.500	0.0977	0.0375	19	-0.45	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0096	1.473	0.0080	1.500	0.0977	0.0375	19	-0.27	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0433	1.482	0.0010	1.500	0.0977	0.0375	19	-0.19	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0360	1.484	0.0530	1.500	0.0977	0.0375	19	-0.17	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0482	1.515	0.0100	1.500	0.0977	0.0375	19	0.16	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0354	1.524	0.0080	1.500	0.0977	0.0375	19	0.25	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0035	1.525	0.0500	1.500	0.0977	0.0375	19	0.26	1%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0292	1.550	0.0000	1.500	0.0977	0.0375	19	0.52	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0041	1.570	0.0600	1.500	0.0977	0.0375	19	0.72	2%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0472	1.595	0.1100	1.500	0.0977	0.0375	19	0.98	3%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0231	1.600	0.0200	1.500	0.0977	0.0375	19	1.03	3%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0450	1.650	0.0800	1.500	0.0977	0.0375	19	1.54	5%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0114	1.655	0.1100	1.500	0.0977	0.0375	19	1.59	5%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan... (1%)	0483	16,150	700.0	1.500	0.0977	0.0375	19	165268.44	538402%	2
321.32	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0521	1.112*	0.0000	1.493	0.3430	0.0155	4	-1.11	13%	0
321.32	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0300	1.439	0.0020	1.493	0.3430	0.0155	4	-0.16	2%	0
321.32	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0394	1.475	0.0500	1.493	0.3430	0.0155	4	-0.05	1%	0
321.32	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0423	1.945	0.0100	1.493	0.3430	0.0155	4	1.32	15%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0486	1.130*	0.0200	1.441	0.0694	0.0494	15	-4.48	11%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0025	1.373	0.0600	1.441	0.0694	0.0494	15	-0.98	2%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0034	1.375	0.0900	1.441	0.0694	0.0494	15	-0.95	2%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0037	1.375	0.0520	1.441	0.0694	0.0494	15	-0.95	2%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0028	1.380	0.0200	1.441	0.0694	0.0494	15	-0.88	2%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0233	1.416	0.0730	1.441	0.0694	0.0494	15	-0.37	1%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0421	1.450	0.0200	1.441	0.0694	0.0494	15	0.13	0%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0527	1.453	0.0050	1.441	0.0694	0.0494	15	0.16	0%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0494	1.458	0.0509	1.441	0.0694	0.0494	15	0.24	1%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0177	1.472	0.0034	1.441	0.0694	0.0494	15	0.44	1%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0106	1.484	0.0740	1.441	0.0694	0.0494	15	0.62	1%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0117	1.495	0.0520	1.441	0.0694	0.0494	15	0.78	2%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0055	1.505	0.0700	1.441	0.0694	0.0494	15	0.92	2%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0136	1.510	0.1400	1.441	0.0694	0.0494	15	0.99	2%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0220	1.535	0.0100	1.441	0.0694	0.0494	15	1.35	3%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03... (1%)	0515	0.7663*	1.508	1.441	0.0694	0.0494	15	-9.72	23%	1
321.99	Acid Soluble Zinc , Other (1%)	0519	1.030*	0.0000	1.396	0.2907	0.0449	10	-1.17	13%	0
321.99	Acid Soluble Zinc , Other (1%)	0476	1.035*	0.0100	1.396	0.2907	0.0449	10	-1.15	13%	0
321.99	Acid Soluble Zinc , Other (1%)	0501	1.256*	0.0164	1.396	0.2907	0.0449	10	-0.45	5%	0
321.99	Acid Soluble Zinc , Other (1%)	0137	1.256*	0.0342	1.396	0.2907	0.0449	10	-0.45	5%	0
321.99	Acid Soluble Zinc , Other (1%)	0042	1.341	0.1150	1.396	0.2907	0.0449	10	-0.18	2%	0
321.99	Acid Soluble Zinc , Other (1%)	0389	1.460	0.0200	1.396	0.2907	0.0449	10	0.21	2%	0
321.99	Acid Soluble Zinc , Other (1%)	0368	1.509	0.0096	1.396	0.2907	0.0449	10	0.36	4%	0
321.99	Acid Soluble Zinc , Other (1%)	0523	1.645	0.1300	1.396	0.2907	0.0449	10	0.80	9%	0
321.99	Acid Soluble Zinc , Other (1%)	0027	1.672	0.0990	1.396	0.2907	0.0449	10	0.88	10%	0
321.99	Acid Soluble Zinc , Other (1%)	0524	1.757	0.0143	1.396	0.2907	0.0449	10	1.15	13%	0
321.99	Acid Soluble Zinc , Other (1%)	0515	1.488	0.3521	1.396	0.2907	0.0449	10	0.29	3%	1
325.30	Water Soluble Zinc , ICP (%)	0300	0.0073	0.0011	0.6010	0.8095	0.0204	5	-0.73	49%	0
325.30	Water Soluble Zinc , ICP (%)	0394	0.0075	0.0010	0.6010	0.8095	0.0204	5	-0.73	49%	0
325.30	Water Soluble Zinc , ICP (%)	0230	0.0150	0.0100	0.6010	0.8095	0.0204	5	-0.72	49%	0
325.30	Water Soluble Zinc , ICP (%)	0402	1.460	0.0200	0.6010	0.8095	0.0204	5	1.06	71%	0
325.30	Water Soluble Zinc , ICP (%)	0406	1.515	0.0700	0.6010	0.8095	0.0204	5	1.13	76%	0

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