

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 170211

Grade 27-0-0

Statistical Summary

Methods: 116

Labs Reporting: 80

Issue Date : 03/31/2017

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 (%)	10	9	13.35	0.2982	13.34		0.2469	0.1029	1.85%		0.1248	2.71%
001.99	Ammoniacal Nitrogen, Other (%)	14	14	13.47	0.1590	13.47		0.1495	0.0499	1.11%		0.0840	2.70%
002.20	Nitrate Nitrogen, Jones Modified (%)	2	2	12.75	0.5657								
002.99	Nitrate Nitrogen, Other (%)	14	14	13.67	0.6409	13.65		0.6922	0.2312	5.07%		0.2154	2.70%
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	5	5	26.58	0.7040	26.58		0.7040	0.3935	2.65%		0.3780	2.44%
009.99	Ammoniacal Plus Nitrate Nitrogen, Other (%)	1		27.19									
010.11	Total Nitrogen, Modified Comprehensive (27%)	5	5	22.53	8.995	22.53	0.8159	8.995	5.028	39.93%	1.81%	0.2500	2.50%
010.12	Total Nitrogen, Salicylic (27%)	1		26.64									
010.17	Total Nitrogen, Comprehensive (27%)	1		26.93									
010.60	Total Nitrogen, Combustion (27%)	56	55	26.39	1.192	26.52	0.8159	0.9822	0.1655	3.70%	1.54%	0.1983	2.44%
010.99	Total Nitrogen, Other (27%)	7	7	26.68	0.7347	26.68	0.8159	0.8331	0.3936	3.12%	1.53%	0.1054	2.44%
020.20	Total Phosphorus as P2O5, Spectrophotometric Molyb... (%)	1		2.335									
020.40	Total Phosphorus as P2O5, Automated (%)	1		0.0250									
020.50	Total Phosphorus as P2O5, ICP (%)	6	4	0.6519	1.262	0.6519		1.262	0.7889	193.64%		0.0300	4.27%
030.40	Citrate Insoluble Phosphorus as P2O5, Automated, t... (%)	1		0.0150									
040.40	Indirect Available Phosphorus as P2O5, Automated (%)	1		0.0100									
041.50	Direct Available Phosphorus as P2O5, ICP (%)	1		0.1000									
041.60	Direct Available Phosphorus as P2O5, Citrate-EDTA ... (%)	1		0.0000									
048.40	Water Soluble Phosphorus as P2O5, Automated (%)	1		0.0150									
050.51	Soluble Potassium as K2O, ICP (Citrate) (%)	1		0.2750									
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (%)	2	1	0.0210									
050.99	Soluble Potassium as K2O, Other (%)	6	5	0.4573	0.9470	0.4573		0.9470	0.5294	207.08%		0.0008	4.50%
060.00	Water (Free), Vacuum Oven (%)	2	2	0.4050	0.1980								
060.30	Water (Free), AFPC No. 2B (105°C oven for 2 hours,... (%)	1		0.7750									
060.99	Water (Free), Other (%)	1		0.8750									
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (4%)	10	10	4.542	0.2339	4.549	0.4251	0.2361	0.0933	5.19%	4.67%	0.0640	3.18%
101.03	Acid Soluble Calcium, AA, 965.09, test portion 200... (4%)	1		4.570									
101.30	Acid Soluble Calcium, ICP, test portion inorganic ... (4%)	22	21	4.440	0.4665	4.496	0.4251	0.2124	0.0579	4.72%	4.73%	0.0762	3.19%
101.32	Acid Soluble Calcium, ICP, test portion 2006.03A-C... (4%)	3	3	3.637	1.448	3.637	0.4251	1.448	1.045	39.82%	5.84%	0.0200	3.29%
101.33	Acid Soluble Calcium, ICP, test portion 2006.03A-C... (4%)	10	9	4.549	0.2171	4.515	0.4251	0.1552	0.0646	3.44%	4.71%	0.0847	3.19%
101.70	Acid Soluble Calcium, Titrimetric (4%)	2	2	4.573	0.0672								

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
101.99	Acid Soluble Calcium, Other (4%)	9	9	4.472	0.3243	4.461	0.4251	0.3423	0.1426	7.67%	4.77%	0.1119	3.19%
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	14	14	2.451	0.4389	2.528	0.3295	0.2474	0.0826	9.79%	6.52%	0.0372	3.48%
121.03	Acid Soluble Magnesium, AA, 965.09, test portion 2...	1		2.495									
121.30	Acid Soluble Magnesium, ICP, test portion inorgani... (1%)	17	16	2.755	0.4934	2.646	0.3295	0.1704	0.0532	6.44%	6.23%	0.0503	3.45%
121.32	Acid Soluble Magnesium, ICP, test portion 2006.03A... (1%)	4	4	2.204	0.7241	2.204	0.3295	0.7241	0.4526	32.86%	7.48%	0.0500	3.55%
121.33	Acid Soluble Magnesium, ICP, test portion 2006.03A... (1%)	11	10	2.573	0.2289	2.608	0.3295	0.1628	0.0643	6.24%	6.32%	0.0551	3.46%
121.99	Acid Soluble Magnesium, Other (1%)	10	9	2.729	1.167	2.594	0.3295	0.5220	0.2175	20.12%	6.35%	0.0583	3.47%
131.70	Water Soluble Magnesium, Titrimetric (EDTA) (%)	1		1.000									
143.99	Elemental Sulfur, Other (%)	2	2	0.1743	0.0152								
148.01	Total Sulfur, Gravimetric - sulfate and elemental (%)	1		0.1400									
148.07	Total Sulfur, ICP, test portion as in 2006.03 modi... (%)	4	4	0.2406	0.0594	0.2406		0.0594	0.0371	24.69%		0.0122	4.96%
148.99	Total Sulfur, Other (%)	3	3	0.2245	0.0583	0.2245		0.0583	0.0421	25.98%		0.0014	5.01%
149.04	Sulfur - HNO3 soluble, ICP (%)	3	3	0.1502	0.0674	0.1502		0.0674	0.0486	44.86%		0.0016	5.32%
151.00	Acid Soluble Arsenic , AA, test portion as in 2006... (ppm)	2	2	0.3150	0.0919								
151.30	Acid Soluble Arsenic , ICP (ppm)	3	2	0.3254	0.0419	0.3254		0.0419	0.0371	12.89%		0.0069	18.94%
151.32	Acid Soluble Arsenic , ICP, 2006.03 (ppm)	1		0.0000									
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified w/9:3... (ppm)	2	1	0.5290									
151.34	Acid Soluble Arsenic , ICP, EPA 3050B/6010C (ppm)	1		0.1943									
151.99	Acid Soluble Arsenic , Other (ppm)	1		0.2950									
165.30	Acid Soluble Boron , ICP, test portion in 982.01 (%)	3	2	0.0040	0.0050	0.0040		0.0050	0.0044	127.10%		0.0015	9.20%
165.99	Acid Soluble Boron , Other (%)	2	2	0.0138	0.0003								
181.00	Acid Soluble Cadmium , AA, test portion as in 2006... (ppm)	1		0.0800									
181.30	Acid Soluble Cadmium , ICP (ppm)	5	4	0.1156	0.0571	0.1156		0.0571	0.0357	49.38%		0.0106	22.14%
181.32	Acid Soluble Cadmium , ICP, 2006.03 (ppm)	1		0.1450									
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified w/9:3... (ppm)	2	1	0.0705									
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	1		0.0000									
181.99	Acid Soluble Cadmium , Other (ppm)	1		0.0950									
191.30	Acid Soluble Chromium , ICP (ppm)	8	8	16.87	7.084	17.31		6.998	3.093	40.42%		0.9634	10.41%
191.32	Acid Soluble Chromium , ICP, 2006.03 (ppm)	1		23.75									
191.33	Acid Soluble Chromium , ICP, 2006.03 modified w/9:3... (ppm)	5	5	23.34	2.744	23.34		2.744	1.534	11.76%		1.990	9.96%
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C (ppm)	1		22.66									
191.99	Acid Soluble Chromium , Other (ppm)	1		2.390									
202.30	Acid Soluble Cobalt , ICP (ppm)	4	4	1.034	0.2497	1.034		0.2497	0.1561	24.15%		0.1581	15.92%
202.32	Acid Soluble Cobalt , ICP, 2006.03 (ppm)	1		1.310									
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w/9:3 ... (ppm)	3	2	1.070	0.0333	1.070		0.0333	0.0294	3.11%		0.0594	15.83%
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	2	1	0.3198									
202.99	Acid Soluble Cobalt , Other (ppm)	1		0.2900									
221.30	Acid Soluble Copper , ICP, test portion inorganic ... (%)	2	2	0.0021	0.0027								
221.32	Acid Soluble Copper , ICP, test portion 2006.03A-C (%)	3	2	0.0002	0.0002	0.0002		0.0002	0.0002	78.57%		0.0001	14.16%
221.33	Acid Soluble Copper , ICP, test portion 2006.03A-C... (%)	2	2	0.0006	0.0006								
221.99	Acid Soluble Copper , Other (%)	6	5	0.0006	0.0003	0.0006		0.0003	0.0002	60.03%		0.0001	12.34%
241.00	Acid Soluble Iron, AA, inorganic 965.09 (%)	1		0.0525									

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
241.03	Acid Soluble Iron, AA, 965.09, test portion 2006.0...	1		0.0525									
241.30	Acid Soluble Iron, ICP, test portion inorganic 965...	7	7	0.0499	0.0035	0.0496		0.0030	0.0014	6.00%		0.0036	6.29%
241.32	Acid Soluble Iron, ICP, test portion 2006.03A-C (%)	2	2	0.0321	0.0190								
241.33	Acid Soluble Iron, ICP, test portion 2006.03A-C, w...	3	3	0.0506	0.0038	0.0506		0.0038	0.0027	7.41%		0.0035	6.27%
241.99	Acid Soluble Iron, Other (%)	2	2	0.0493	0.0040								
251.00	Acid Soluble Lead , AA, test portion as in 2006.03...	1		3.000									
251.30	Acid Soluble Lead , ICP (ppm)	8	7	3.742	0.8282	3.742		0.9391	0.4437	25.09%		0.1374	13.12%
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9:3 HN...	4	3	3.786	0.2666	3.786		0.2666	0.1924	7.04%		0.1380	13.09%
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	1		0.5965									
251.99	Acid Soluble Lead , Other (ppm)	1		3.600									
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (%)	1		0.0046									
261.15	Acid Soluble Manganese , AA, 965.09, test portion ...	1		0.0046									
261.30	Acid Soluble Manganese , ICP, test portion 972.02a (%)	2	2	0.0048	0.0003								
261.32	Acid Soluble Manganese , ICP, test portion inorgan...	2	2	0.0048	0.0003								
261.33	Acid Soluble Manganese , ICP, test portion organ...	1		2.440									
261.34	Acid Soluble Manganese , ICP, test portion 2006.03...	2	2	0.0033	0.0018								
261.35	Acid Soluble Manganese , ICP, test portion 2006.03...	3	3	0.0045	0.0005	0.0045		0.0005	0.0004	11.59%		0.0004	9.01%
261.99	Acid Soluble Manganese , Other (%)	2	2	0.0044	0.0002								
281.30	Acid Soluble Mercury , ICP (ppm)	4	4	0.2784	0.4237	0.2784		0.4237	0.2648	152.19%		0.1584	19.39%
281.99	Acid Soluble Mercury , Other (ppm)	1		0.0100									
289.30	Acid Soluble Molybdenum , ICP (ppm)	5	5	2.431	1.403	2.431		1.403	0.7841	57.69%		0.6650	13.99%
289.32	Acid Soluble Molybdenum , ICP, 2006.03 (ppm)	2	2	24.31	31.40								
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modified w/...	4	3	2.050	0.2321	2.050		0.2321	0.1675	11.32%		0.1396	14.36%
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010C (p	2	2	1.694	0.8284								
289.99	Acid Soluble Molybdenum , Other (ppm)	1		0.0100									
291.00	Acid Soluble Nickel , AA, test portion as in 2006....	1		13.50									
291.30	Acid Soluble Nickel , ICP (ppm)	8	8	9.675	3.776	9.889		3.783	1.672	38.26%		0.2968	11.33%
291.32	Acid Soluble Nickel , ICP, 2006.03 (ppm)	1		12.90									
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w/9:3 ...	5	5	12.96	2.168	12.96		2.168	1.212	16.73%		1.223	10.88%
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	2	2	6.513	6.782								
291.99	Acid Soluble Nickel , Other (ppm)	1		2.265									
301.30	Acid Soluble Selenium , ICP (ppm)	3	2	0.2958	0.2147	0.2958		0.2147	0.1898	72.58%		0.0142	19.22%
301.33	Acid Soluble Selenium , ICP, 2006.03 modified w/9:...	2	1	0.4565									
301.34	Acid Soluble Selenium , ICP, EPA 3050B/6010C (ppm)	1		0.7715									
301.99	Acid Soluble Selenium , Other (ppm)	1		0.0400									
311.32	Sodium, ICP, 2006.03 test portion (%)	2	2	0.1152	0.0611								
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl test .	3	3	0.1643	0.0137	0.1643		0.0137	0.0099	8.36%		0.0047	5.25%
311.99	Sodium, Other (%)	3	3	0.1913	0.0327	0.1913		0.0327	0.0236	17.10%		0.0053	5.13%
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (%)	1		0.0022									
321.30	Acid Soluble Zinc , ICP, test portion inorganic 96...	6	5	0.0618	0.1304	0.0618		0.1304	0.0729	211.18%		0.0025	6.08%
321.32	Acid Soluble Zinc , ICP, test portion 2006.03A-C (%)	4	3	0.0013	0.0005	0.0013		0.0005	0.0003	38.16%		0.0004	10.94%
321.33	Acid Soluble Zinc , ICP, test portion 2006.03A-C, ...	4	4	4.604	9.204	4.604		9.204	5.753	199.93%		0.4352	3.18%

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
321.99	Acid Soluble Zinc , Other (%)	7	7	0.0017	0.0005	0.0017		0.0004	0.0002	24.18%		0.0002	10.44%

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Method Proficiency For All Labs (Lab Values)

Sample # 170211

Grade 27-0-0

Method Precision Report

Issue Date : 03/31/2017

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 (%)	10	9	13.35	0.2982	0.2886	0.1064	0.3076	2.16%	0.80%	2.30%	2.892
001.99	Ammoniacal Nitrogen, Other (%)	14	14	13.47	0.1590	0.1516	0.0675	0.1660	1.13%	0.50%	1.23%	2.458
002.99	Nitrate Nitrogen, Other (%)	14	14	13.67	0.6409	0.6250	0.2005	0.6564	4.57%	1.47%	4.80%	3.273
010.60	Total Nitrogen, Combustion (27%)	56	50	26.57	0.9427	0.9351	0.1681	0.9501	3.52%	0.63%	3.58%	5.654
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (4%)	10	9	4.499	0.2016	0.1989	0.0458	0.2042	4.42%	1.02%	4.54%	4.455
101.30	Acid Soluble Calcium, ICP, test portion inorganic 965.09 (4%)	22	18	4.519	0.2958	0.2939	0.0480	0.2978	6.50%	1.06%	6.59%	6.201
101.33	Acid Soluble Calcium, ICP, test portion 2006.03A-C, w/dual acid (4%)	10	8	4.486	0.1126	0.1010	0.0705	0.1232	2.25%	1.57%	2.75%	1.747
101.99	Acid Soluble Calcium, Other (4%)	9	9	4.472	0.3243	0.3181	0.0897	0.3305	7.11%	2.00%	7.39%	3.686
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	14	13	2.557	0.1997	0.1984	0.0317	0.2010	7.76%	1.24%	7.86%	6.330
121.30	Acid Soluble Magnesium, ICP, test portion inorganic 965.09 (1%)	17	14	2.633	0.1627	0.1610	0.0330	0.1643	6.11%	1.25%	6.24%	4.985
121.33	Acid Soluble Magnesium, ICP, test portion 2006.03A-C, w/dual acid (1%)	11	9	2.636	0.1220	0.1162	0.0528	0.1276	4.41%	2.00%	4.84%	2.418
121.99	Acid Soluble Magnesium, Other (1%)	10	8	2.393	0.6263	0.6249	0.0583	0.6276	26.11%	2.43%	26.23%	10.77
191.30	Acid Soluble Chromium , ICP (ppm)	8	8	16.87	7.084	7.049	0.9891	7.118	41.78%	5.86%	42.19%	7.197
291.30	Acid Soluble Nickel , ICP (ppm)	8	8	9.675	3.776	3.772	0.2580	3.780	38.98%	2.67%	39.07%	14.65

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

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STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Methods: 116

Sample # 170211

Lab Values

Labs Reporting: 80

Grade 27-0-0

Issue Date : 03/31/2017

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 (%)	0486	12.86	0.0900	13.34	0.2469	0.1248	9	-1.81	2%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0231	13.14	0.2700	13.34	0.2469	0.1248	9	-0.76	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0526	13.20	0.0500	13.34	0.2469	0.1248	9	-0.54	1%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0309	13.29	0.1900	13.34	0.2469	0.1248	9	-0.20	0%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0405	13.43	0.0800	13.34	0.2469	0.1248	9	0.34	0%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0444	13.43	0.2400	13.34	0.2469	0.1248	9	0.34	0%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0177	13.45	0.0030	13.34	0.2469	0.1248	9	0.40	0%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0117	13.45	0.1000	13.34	0.2469	0.1248	9	0.42	0%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0389	13.95	0.1000	13.34	0.2469	0.1248	9	2.28	2%	0
001.10	Ammoniacal Nitrogen, Magnesium Oxide Method (%)	0230	11.95	0.9000	13.34	0.2469	0.1248	9	-5.19	5%	1
001.99	Ammoniacal Nitrogen, Other (%)	0394	13.20	0.1800	13.47	0.1495	0.0840	14	-1.79	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0027	13.27	0.0900	13.47	0.1495	0.0840	14	-1.36	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0200	13.35	0.1000	13.47	0.1495	0.0840	14	-0.79	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0493	13.35	0.1000	13.47	0.1495	0.0840	14	-0.79	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0522	13.44	0.0400	13.47	0.1495	0.0840	14	-0.18	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0371	13.45	0.1000	13.47	0.1495	0.0840	14	-0.12	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0519	13.46	0.0900	13.47	0.1495	0.0840	14	-0.08	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0500	13.48	0.0000	13.47	0.1495	0.0840	14	0.08	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0169	13.50	0.0300	13.47	0.1495	0.0840	14	0.18	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0513	13.55	0.1000	13.47	0.1495	0.0840	14	0.55	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0096	13.57	0.0200	13.47	0.1495	0.0840	14	0.68	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0368	13.60	0.0901	13.47	0.1495	0.0840	14	0.90	0%	0
001.99	Ammoniacal Nitrogen, Other (%)	0423	13.61	0.1100	13.47	0.1495	0.0840	14	0.92	1%	0
001.99	Ammoniacal Nitrogen, Other (%)	0501	13.83	0.1263	13.47	0.1495	0.0840	14	2.44	1%	0
002.20	Nitrate Nitrogen, Jones Modified (%)	0117	12.35	0.1000				2			0
002.20	Nitrate Nitrogen, Jones Modified (%)	0230	13.15	0.3000				2			0
002.99	Nitrate Nitrogen, Other (%)	0528	12.77	0.0400	13.65	0.6922	0.2154	14	-1.27	3%	0
002.99	Nitrate Nitrogen, Other (%)	0029	12.85	0.3100	13.65	0.6922	0.2154	14	-1.16	3%	0
002.99	Nitrate Nitrogen, Other (%)	0027	13.08	0.0720	13.65	0.6922	0.2154	14	-0.82	2%	0
002.99	Nitrate Nitrogen, Other (%)	0371	13.30	0.2000	13.65	0.6922	0.2154	14	-0.51	1%	0
002.99	Nitrate Nitrogen, Other (%)	0200	13.42	0.3100	13.65	0.6922	0.2154	14	-0.34	1%	0
002.99	Nitrate Nitrogen, Other (%)	0423	13.42	0.2200	13.65	0.6922	0.2154	14	-0.33	1%	0
002.99	Nitrate Nitrogen, Other (%)	0368	13.47	0.5604	13.65	0.6922	0.2154	14	-0.26	1%	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
002.99	Nitrate Nitrogen, Other (%)	0519	13.52	0.0100	13.65	0.6922	0.2154	14	-0.20	0%	0
002.99	Nitrate Nitrogen, Other (%)	0513	13.64	0.0800	13.65	0.6922	0.2154	14	-0.01	0%	0
002.99	Nitrate Nitrogen, Other (%)	0526	13.73	0.0000	13.65	0.6922	0.2154	14	0.12	0%	0
002.99	Nitrate Nitrogen, Other (%)	0486	14.34	0.2000	13.65	0.6922	0.2154	14	1.00	3%	0
002.99	Nitrate Nitrogen, Other (%)	0394	14.42	0.0500	13.65	0.6922	0.2154	14	1.10	3%	0
002.99	Nitrate Nitrogen, Other (%)	0231	14.47	0.5600	13.65	0.6922	0.2154	14	1.18	3%	0
002.99	Nitrate Nitrogen, Other (%)	0501	14.91	0.4025	13.65	0.6922	0.2154	14	1.81	5%	0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0309	25.35	1.030	26.58	0.7040	0.3780	5	-1.76	2%	0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0444	26.76	0.3500	26.58	0.7040	0.3780	5	0.25	0%	0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0200	26.77	0.2100	26.58	0.7040	0.3780	5	0.26	0%	0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0397	26.97	0.2600	26.58	0.7040	0.3780	5	0.55	1%	0
009.10	Ammoniacal Plus Nitrate Nitrogen, Devarda (%)	0169	27.07	0.0400	26.58	0.7040	0.3780	5	0.69	1%	0
009.99	Ammoniacal Plus Nitrate Nitrogen, Other (%)	0513	27.19	0.0200				1			0
010.11	Total Nitrogen, Modified Comprehensive (27%)	0114	6.455*	0.1900	22.53	8.995	0.2500	5	-1.79	36%	0
010.11	Total Nitrogen, Modified Comprehensive (27%)	0309	25.91	0.8200	22.53	8.995	0.2500	5	0.38	8%	0
010.11	Total Nitrogen, Modified Comprehensive (27%)	0522	26.56	0.1800	22.53	8.995	0.2500	5	0.45	9%	0
010.11	Total Nitrogen, Modified Comprehensive (27%)	0500	26.57	0.0200	22.53	8.995	0.2500	5	0.45	9%	0
010.11	Total Nitrogen, Modified Comprehensive (27%)	0105	27.14	0.0400	22.53	8.995	0.2500	5	0.51	10%	0
010.12	Total Nitrogen, Salicylic (27%)	0415	26.64	0.3627				1			0
010.17	Total Nitrogen, Comprehensive (27%)	0526	26.93	0.0000				1			0
010.60	Total Nitrogen, Combustion (27%)	0307	23.17*	0.7410	26.52	0.9822	0.1983	55	-3.41	6%	0
010.60	Total Nitrogen, Combustion (27%)	0483	23.23*	0.0700	26.52	0.9822	0.1983	55	-3.36	6%	0
010.60	Total Nitrogen, Combustion (27%)	0521	23.30*	0.0000	26.52	0.9822	0.1983	55	-3.27	6%	0
010.60	Total Nitrogen, Combustion (27%)	0234	24.29*	0.0700	26.52	0.9822	0.1983	55	-2.28	4%	0
010.60	Total Nitrogen, Combustion (27%)	0042	24.43*	0.5100	26.52	0.9822	0.1983	55	-2.13	4%	0
010.60	Total Nitrogen, Combustion (27%)	0292	24.56*	0.0300	26.52	0.9822	0.1983	55	-2.00	4%	0
010.60	Total Nitrogen, Combustion (27%)	0086	24.68*	0.4790	26.52	0.9822	0.1983	55	-1.88	3%	0
010.60	Total Nitrogen, Combustion (27%)	0451	24.88*	0.0500	26.52	0.9822	0.1983	55	-1.68	3%	0
010.60	Total Nitrogen, Combustion (27%)	0230	25.15*	0.3000	26.52	0.9822	0.1983	55	-1.40	3%	0
010.60	Total Nitrogen, Combustion (27%)	0324	25.15*	0.3000	26.52	0.9822	0.1983	55	-1.40	3%	0
010.60	Total Nitrogen, Combustion (27%)	0402	25.41*	0.7300	26.52	0.9822	0.1983	55	-1.14	2%	0
010.60	Total Nitrogen, Combustion (27%)	0406	25.57*	0.6700	26.52	0.9822	0.1983	55	-0.97	2%	0
010.60	Total Nitrogen, Combustion (27%)	0073	25.82	0.9900	26.52	0.9822	0.1983	55	-0.72	1%	0
010.60	Total Nitrogen, Combustion (27%)	0523	25.90	0.0000	26.52	0.9822	0.1983	55	-0.63	1%	0
010.60	Total Nitrogen, Combustion (27%)	0177	25.97	0.0500	26.52	0.9822	0.1983	55	-0.57	1%	0
010.60	Total Nitrogen, Combustion (27%)	0527	26.04	0.2650	26.52	0.9822	0.1983	55	-0.49	1%	0
010.60	Total Nitrogen, Combustion (27%)	0356	26.15	0.1800	26.52	0.9822	0.1983	55	-0.38	1%	0
010.60	Total Nitrogen, Combustion (27%)	0516	26.15	0.1000	26.52	0.9822	0.1983	55	-0.38	1%	0
010.60	Total Nitrogen, Combustion (27%)	0041	26.38	0.4500	26.52	0.9822	0.1983	55	-0.15	0%	0
010.60	Total Nitrogen, Combustion (27%)	0377	26.45	0.0600	26.52	0.9822	0.1983	55	-0.07	0%	0
010.60	Total Nitrogen, Combustion (27%)	0457	26.55	0.1000	26.52	0.9822	0.1983	55	0.03	0%	0
010.60	Total Nitrogen, Combustion (27%)	0444	26.61	0.0500	26.52	0.9822	0.1983	55	0.09	0%	0
010.60	Total Nitrogen, Combustion (27%)	0291	26.73	0.0100	26.52	0.9822	0.1983	55	0.21	0%	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
010.60	Total Nitrogen, Combustion (27%)	0043	26.73	0.1000	26.52	0.9822	0.1983	55	0.21	0%	0
010.60	Total Nitrogen, Combustion (27%)	0354	26.76	0.0000	26.52	0.9822	0.1983	55	0.24	0%	0
010.60	Total Nitrogen, Combustion (27%)	0485	26.78	0.1600	26.52	0.9822	0.1983	55	0.26	0%	0
010.60	Total Nitrogen, Combustion (27%)	0007	26.80	0.6000	26.52	0.9822	0.1983	55	0.28	1%	0
010.60	Total Nitrogen, Combustion (27%)	0131	26.80	0.1400	26.52	0.9822	0.1983	55	0.29	1%	0
010.60	Total Nitrogen, Combustion (27%)	0029	26.82	0.1300	26.52	0.9822	0.1983	55	0.30	1%	0
010.60	Total Nitrogen, Combustion (27%)	0501	26.84	0.0790	26.52	0.9822	0.1983	55	0.32	1%	0
010.60	Total Nitrogen, Combustion (27%)	0157	26.90	0.0000	26.52	0.9822	0.1983	55	0.39	1%	0
010.60	Total Nitrogen, Combustion (27%)	0389	26.90	0.2000	26.52	0.9822	0.1983	55	0.39	1%	0
010.60	Total Nitrogen, Combustion (27%)	0482	26.95	0.1000	26.52	0.9822	0.1983	55	0.44	1%	0
010.60	Total Nitrogen, Combustion (27%)	0421	26.96	0.0500	26.52	0.9822	0.1983	55	0.44	1%	0
010.60	Total Nitrogen, Combustion (27%)	0405	26.97	0.0500	26.52	0.9822	0.1983	55	0.45	1%	0
010.60	Total Nitrogen, Combustion (27%)	0025	27.04	0.1100	26.52	0.9822	0.1983	55	0.52	1%	0
010.60	Total Nitrogen, Combustion (27%)	0452	27.04	0.0700	26.52	0.9822	0.1983	55	0.52	1%	0
010.60	Total Nitrogen, Combustion (27%)	0472	27.05	0.1100	26.52	0.9822	0.1983	55	0.53	1%	0
010.60	Total Nitrogen, Combustion (27%)	0231	27.06	0.0500	26.52	0.9822	0.1983	55	0.54	1%	0
010.60	Total Nitrogen, Combustion (27%)	0055	27.06	0.1480	26.52	0.9822	0.1983	55	0.55	1%	0
010.60	Total Nitrogen, Combustion (27%)	0486	27.09	0.1100	26.52	0.9822	0.1983	55	0.57	1%	0
010.60	Total Nitrogen, Combustion (27%)	0137	27.12	0.0800	26.52	0.9822	0.1983	55	0.61	1%	0
010.60	Total Nitrogen, Combustion (27%)	0423	27.14	0.0900	26.52	0.9822	0.1983	55	0.62	1%	0
010.60	Total Nitrogen, Combustion (27%)	0360	27.18	0.1300	26.52	0.9822	0.1983	55	0.67	1%	0
010.60	Total Nitrogen, Combustion (27%)	0049	27.19	0.0600	26.52	0.9822	0.1983	55	0.68	1%	0
010.60	Total Nitrogen, Combustion (27%)	0136	27.19	0.0200	26.52	0.9822	0.1983	55	0.68	1%	0
010.60	Total Nitrogen, Combustion (27%)	0096	27.22	0.1200	26.52	0.9822	0.1983	55	0.71	1%	0
010.60	Total Nitrogen, Combustion (27%)	0034	27.24	0.1200	26.52	0.9822	0.1983	55	0.73	1%	0
010.60	Total Nitrogen, Combustion (27%)	0040	27.30	0.2000	26.52	0.9822	0.1983	55	0.79	1%	0
010.60	Total Nitrogen, Combustion (27%)	0105	27.33	0.0200	26.52	0.9822	0.1983	55	0.82	2%	0
010.60	Total Nitrogen, Combustion (27%)	0023	27.55	0.8870	26.52	0.9822	0.1983	55	1.05	2%	0
010.60	Total Nitrogen, Combustion (27%)	0095	27.59	0.0800	26.52	0.9822	0.1983	55	1.09	2%	0
010.60	Total Nitrogen, Combustion (27%)	0494	27.76	0.2700	26.52	0.9822	0.1983	55	1.26	2%	0
010.60	Total Nitrogen, Combustion (27%)	0443	28.09	0.2200	26.52	0.9822	0.1983	55	1.60	3%	0
010.60	Total Nitrogen, Combustion (27%)	0368	28.66	0.1990	26.52	0.9822	0.1983	55	2.18	4%	0
010.60	Total Nitrogen, Combustion (27%)	0325	26.47	1.330	26.52	0.9822	0.1983	55	-0.06	0%	1
010.99	Total Nitrogen, Other (27%)	0522	25.86	0.0900	26.68	0.8331	0.1054	7	-0.89	2%	0
010.99	Total Nitrogen, Other (27%)	0528	25.98	0.0200	26.68	0.8331	0.1054	7	-0.76	1%	0
010.99	Total Nitrogen, Other (27%)	0524	25.99	0.0176	26.68	0.8331	0.1054	7	-0.75	1%	0
010.99	Total Nitrogen, Other (27%)	0519	27.01	0.1500	26.68	0.8331	0.1054	7	0.35	1%	0
010.99	Total Nitrogen, Other (27%)	0518	27.02	0.2000	26.68	0.8331	0.1054	7	0.37	1%	0
010.99	Total Nitrogen, Other (27%)	0513	27.15	0.0600	26.68	0.8331	0.1054	7	0.51	1%	0
010.99	Total Nitrogen, Other (27%)	0493	27.75	0.2000	26.68	0.8331	0.1054	7	1.16	2%	0
020.20	Total Phosphorus as P2O5, Spectrophotometric ... (%)	0292	2.335	0.1500				1			0
020.40	Total Phosphorus as P2O5, Automated (%)	0096	0.0250	0.0100				1			0
020.50	Total Phosphorus as P2O5, ICP (%)	0521	0.0021	0.0000	0.6519	1.262	0.0300	4	-0.44	50%	0

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020.50	Total Phosphorus as P2O5, ICP (%)	0524	0.0054	0.0000	0.6519	1.262	0.0300	4	-0.43	50%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0483	0.0550	0.0700	0.6519	1.262	0.0300	4	-0.40	46%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0402	2.545	0.0500	0.6519	1.262	0.0300	4	1.27	145%	0
020.50	Total Phosphorus as P2O5, ICP (%)	0389	0.0000	0.0000	0.6519	1.262	0.0300	4			4
020.50	Total Phosphorus as P2O5, ICP (%)	0527	0.0000	0.0000	0.6519	1.262	0.0300	4			4
030.40	Citrate Insoluble Phosphorus as P2O5, Automat... (%)	0096	0.0150	0.0100				1			0
040.40	Indirect Available Phosphorus as P2O5, Automa... (%)	0096	0.0100	0.0200				0			4
041.50	Direct Available Phosphorus as P2O5, ICP (%)	0325	0.1000	0.0000				1			0
041.60	Direct Available Phosphorus as P2O5, Citrate-... (%)	0354	0.0000	0.0000				0			4
048.40	Water Soluble Phosphorus as P2O5, Automated (%)	0096	0.0150	0.0100				1			0
050.51	Soluble Potassium as K2O, ICP (Citrate) (%)	0483	0.2750	0.1100				1			0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (%)	0423	0.0210	0.0020				1			0
050.52	Soluble Potassium as K2O, ICP (Citrate-EDTA) (%)	0354	0.0000	0.0000				1			4
050.99	Soluble Potassium as K2O, Other (%)	0521	0.0029	0.0000	0.4573	0.9470	0.0008	5	-0.42	50%	0
050.99	Soluble Potassium as K2O, Other (%)	0389	0.0065	0.0010	0.4573	0.9470	0.0008	5	-0.42	49%	0
050.99	Soluble Potassium as K2O, Other (%)	0524	0.0273	0.0031	0.4573	0.9470	0.0008	5	-0.40	47%	0
050.99	Soluble Potassium as K2O, Other (%)	0325	0.1000	0.0000	0.4573	0.9470	0.0008	5	-0.33	39%	0
050.99	Soluble Potassium as K2O, Other (%)	0402	2.150	0.0000	0.4573	0.9470	0.0008	5	1.56	185%	0
050.99	Soluble Potassium as K2O, Other (%)	0527	0.0000	0.0000	0.4573	0.9470	0.0008	5			4
060.00	Water (Free), Vacuum Oven (%)	0007	0.2650	0.0300				2			0
060.00	Water (Free), Vacuum Oven (%)	0096	0.5450	0.2900				2			0
060.30	Water (Free), AFPC No. 2B (105°C oven for 2 h... (%)	0513	0.7750	0.0100				1			0
060.99	Water (Free), Other (%)	0513	0.8750	0.0100				1			0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (4%)	0029	4.096	0.0100	4.549	0.2361	0.0640	10	-1.79	5%	0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (4%)	0457	4.320	0.0400	4.549	0.2361	0.0640	10	-0.90	3%	0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (4%)	0513	4.455	0.0100	4.549	0.2361	0.0640	10	-0.37	1%	0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (4%)	0485	4.460	0.0000	4.549	0.2361	0.0640	10	-0.35	1%	0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (4%)	0169	4.475	0.0500	4.549	0.2361	0.0640	10	-0.29	1%	0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (4%)	0028	4.625	0.0300	4.549	0.2361	0.0640	10	0.30	1%	0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (4%)	0043	4.635	0.0100	4.549	0.2361	0.0640	10	0.34	1%	0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (4%)	0105	4.690	0.1000	4.549	0.2361	0.0640	10	0.55	2%	0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (4%)	0040	4.735	0.1500	4.549	0.2361	0.0640	10	0.73	2%	0
101.00	Acid Soluble Calcium, AA, inorganic 965.09 (4%)	0157	4.930	0.2400	4.549	0.2361	0.0640	10	1.50	4%	0
101.03	Acid Soluble Calcium, AA, 965.09, test portio... (4%)	0105	4.570	0.2600				1			0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0234	2.795*	0.0500	4.496	0.2124	0.0762	21	-8.01	19%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0500	3.930*	0.0000	4.496	0.2124	0.0762	21	-2.67	6%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0486	4.030*	0.0200	4.496	0.2124	0.0762	21	-2.20	5%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0482	4.305	0.0500	4.496	0.2124	0.0762	21	-0.90	2%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0073	4.375	0.0900	4.496	0.2124	0.0762	21	-0.57	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0231	4.400	0.0400	4.496	0.2124	0.0762	21	-0.45	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0354	4.445	0.0100	4.496	0.2124	0.0762	21	-0.24	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0351	4.451	0.2760	4.496	0.2124	0.0762	21	-0.21	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0402	4.490	0.0200	4.496	0.2124	0.0762	21	-0.03	0%	0

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101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0137	4.511	0.0500	4.496	0.2124	0.0762	21	0.07	0%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0324	4.520	0.1600	4.496	0.2124	0.0762	21	0.11	0%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0394	4.520	0.0400	4.496	0.2124	0.0762	21	0.11	0%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0472	4.520	0.0400	4.496	0.2124	0.0762	21	0.11	0%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0444	4.555	0.0700	4.496	0.2124	0.0762	21	0.28	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0360	4.560	0.0800	4.496	0.2124	0.0762	21	0.30	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0114	4.565	0.1100	4.496	0.2124	0.0762	21	0.32	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0397	4.567	0.0140	4.496	0.2124	0.0762	21	0.33	1%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0157	4.660	0.3000	4.496	0.2124	0.0762	21	0.77	2%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0291	4.890	0.0200	4.496	0.2124	0.0762	21	1.85	4%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0433	4.915	0.0500	4.496	0.2124	0.0762	21	1.97	5%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0483	5.235	0.1100	4.496	0.2124	0.0762	21	3.48	8%	0
101.30	Acid Soluble Calcium, ICP, test portion inorg... (4%)	0096	4.735	0.4300	4.496	0.2124	0.0762	21	1.12	3%	1
101.32	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0521	1.991*	0.0000	3.637	1.448	0.0200	3	-1.14	23%	0
101.32	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0528	4.205	0.0100	3.637	1.448	0.0200	3	0.39	8%	0
101.32	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0423	4.715	0.0500	3.637	1.448	0.0200	3	0.74	15%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0055	4.330	0.2000	4.515	0.1552	0.0847	9	-1.10	2%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0515	4.418	0.1760	4.515	0.1552	0.0847	9	-0.58	1%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0023	4.459	0.0290	4.515	0.1552	0.0847	9	-0.34	1%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0177	4.471	0.0452	4.515	0.1552	0.0847	9	-0.26	0%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0025	4.482	0.0695	4.515	0.1552	0.0847	9	-0.20	0%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0037	4.485	0.0100	4.515	0.1552	0.0847	9	-0.18	0%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0527	4.518	0.0270	4.515	0.1552	0.0847	9	0.01	0%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0421	4.727	0.0050	4.515	0.1552	0.0847	9	1.26	2%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0117	5.056	0.2010	4.515	0.1552	0.0847	9	3.22	6%	0
101.33	Acid Soluble Calcium, ICP, test portion 2006... (4%)	0494	4.392	0.7430	4.515	0.1552	0.0847	9	-0.73	1%	1
101.70	Acid Soluble Calcium, Titrimetric (4%)	0522	4.525	0.1500				2			0
101.70	Acid Soluble Calcium, Titrimetric (4%)	0200	4.620	0.0000				2			0
101.99	Acid Soluble Calcium, Other (4%)	0501	4.145	0.1100	4.461	0.3423	0.1119	9	-0.85	4%	0
101.99	Acid Soluble Calcium, Other (4%)	0515	4.234	0.1646	4.461	0.3423	0.1119	9	-0.61	3%	0
101.99	Acid Soluble Calcium, Other (4%)	0519	4.270	0.0600	4.461	0.3423	0.1119	9	-0.51	2%	0
101.99	Acid Soluble Calcium, Other (4%)	0389	4.290	0.0600	4.461	0.3423	0.1119	9	-0.46	2%	0
101.99	Acid Soluble Calcium, Other (4%)	0526	4.310	0.0000	4.461	0.3423	0.1119	9	-0.41	2%	0
101.99	Acid Soluble Calcium, Other (4%)	0368	4.409	0.1194	4.461	0.3423	0.1119	9	-0.14	1%	0
101.99	Acid Soluble Calcium, Other (4%)	0523	4.600	0.2000	4.461	0.3423	0.1119	9	0.38	2%	0
101.99	Acid Soluble Calcium, Other (4%)	0027	4.913	0.1230	4.461	0.3423	0.1119	9	1.22	5%	0
101.99	Acid Soluble Calcium, Other (4%)	0042	5.075	0.1700	4.461	0.3423	0.1119	9	1.66	7%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0500	1.080*	0.0400	2.528	0.2474	0.0372	14	-5.85	29%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0073	2.195*	0.0700	2.528	0.2474	0.0372	14	-1.34	7%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0457	2.220*	0.0400	2.528	0.2474	0.0372	14	-1.24	6%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0029	2.356	0.0980	2.528	0.2474	0.0372	14	-0.69	3%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0105	2.520	0.0400	2.528	0.2474	0.0372	14	-0.03	0%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0309	2.545	0.0100	2.528	0.2474	0.0372	14	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				
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0169	2.570	0.0600	2.528	0.2474	0.0372	14	0.17	1%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0040	2.595	0.0100	2.528	0.2474	0.0372	14	0.27	1%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0157	2.605	0.0300	2.528	0.2474	0.0372	14	0.31	2%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0485	2.660	0.0170	2.528	0.2474	0.0372	14	0.53	3%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0516	2.665	0.0460	2.528	0.2474	0.0372	14	0.56	3%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0028	2.685	0.0100	2.528	0.2474	0.0372	14	0.64	3%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0043	2.715	0.0300	2.528	0.2474	0.0372	14	0.76	4%	0
121.00	Acid Soluble Magnesium, AA, inorganic 965.09 (1%)	0513	2.910	0.0200	2.528	0.2474	0.0372	14	1.55	8%	0
121.03	Acid Soluble Magnesium, AA, 965.09, test port... (1%)	0105	2.495	0.0700				1			0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0354	2.481	0.0140	2.646	0.1704	0.0503	16	-0.97	3%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0137	2.490	0.0280	2.646	0.1704	0.0503	16	-0.92	3%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0482	2.495	0.0500	2.646	0.1704	0.0503	16	-0.89	3%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0231	2.515	0.0500	2.646	0.1704	0.0503	16	-0.77	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0157	2.520	0.0600	2.646	0.1704	0.0503	16	-0.74	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0073	2.535	0.0300	2.646	0.1704	0.0503	16	-0.65	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0397	2.582	0.0430	2.646	0.1704	0.0503	16	-0.38	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0096	2.600	0.0200	2.646	0.1704	0.0503	16	-0.27	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0360	2.630	0.0600	2.646	0.1704	0.0503	16	-0.09	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0444	2.640	0.0800	2.646	0.1704	0.0503	16	-0.04	0%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0114	2.690	0.0600	2.646	0.1704	0.0503	16	0.26	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0324	2.705	0.1700	2.646	0.1704	0.0503	16	0.35	1%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0433	2.750	0.0200	2.646	0.1704	0.0503	16	0.61	2%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0483	2.950	0.0600	2.646	0.1704	0.0503	16	1.78	6%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0472	2.985	0.0100	2.646	0.1704	0.0503	16	1.99	6%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0234	4.515	0.0500	2.646	0.1704	0.0503	16	10.97	35%	0
121.30	Acid Soluble Magnesium, ICP, test portion ino... (1%)	0351	2.660	0.2620	2.646	0.1704	0.0503	16	0.08	0%	1
121.32	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0521	1.124*	0.0000	2.204	0.7241	0.0500	4	-1.49	24%	0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0394	2.465	0.0700	2.204	0.7241	0.0500	4	0.36	6%	0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0423	2.560	0.0600	2.204	0.7241	0.0500	4	0.49	8%	0
121.32	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0528	2.665	0.0700	2.204	0.7241	0.0500	4	0.64	10%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0486	2.010*	0.0200	2.608	0.1628	0.0551	10	-3.42	11%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0515	2.428	0.1345	2.608	0.1628	0.0551	10	-1.03	3%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0037	2.567	0.0160	2.608	0.1628	0.0551	10	-0.24	1%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0023	2.568	0.0420	2.608	0.1628	0.0551	10	-0.23	1%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0177	2.576	0.0329	2.608	0.1628	0.0551	10	-0.18	1%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0025	2.629	0.0461	2.608	0.1628	0.0551	10	0.12	0%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0055	2.630	0.1400	2.608	0.1628	0.0551	10	0.12	0%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0421	2.741	0.0050	2.608	0.1628	0.0551	10	0.75	3%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0527	2.744	0.0380	2.608	0.1628	0.0551	10	0.77	3%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0117	2.837	0.0760	2.608	0.1628	0.0551	10	1.31	4%	0
121.33	Acid Soluble Magnesium, ICP, test portion 200... (1%)	0494	2.517	0.3937	2.608	0.1628	0.0551	10	-0.52	2%	1
121.99	Acid Soluble Magnesium, Other (1%)	0519	0.9850*	0.0100	2.594	0.5220	0.0583	9	-2.85	31%	0
121.99	Acid Soluble Magnesium, Other (1%)	0042	2.150*	0.0200	2.594	0.5220	0.0583	9	-0.79	9%	0

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121.99	Acid Soluble Magnesium, Other (1%)	0515	2.387	0.0914	2.594	0.5220	0.0583	9	-0.37	4%	0
121.99	Acid Soluble Magnesium, Other (1%)	0368	2.514	0.1704	2.594	0.5220	0.0583	9	-0.14	2%	0
121.99	Acid Soluble Magnesium, Other (1%)	0389	2.620	0.0000	2.594	0.5220	0.0583	9	0.05	0%	0
121.99	Acid Soluble Magnesium, Other (1%)	0523	2.650	0.1000	2.594	0.5220	0.0583	9	0.10	1%	0
121.99	Acid Soluble Magnesium, Other (1%)	0027	2.824	0.0540	2.594	0.5220	0.0583	9	0.41	4%	0
121.99	Acid Soluble Magnesium, Other (1%)	0524	3.014	0.0592	2.594	0.5220	0.0583	9	0.74	8%	0
121.99	Acid Soluble Magnesium, Other (1%)	0200	5.420	0.0200	2.594	0.5220	0.0583	9	5.00	54%	0
121.99	Acid Soluble Magnesium, Other (1%)	0501	1.632*	0.6697	2.594	0.5220	0.0583	9	-1.70	19%	1
131.70	Water Soluble Magnesium, Titrimetric (EDTA) (%)	0518	1.000	0.0800				1			0
143.99	Elemental Sulfur, Other (%)	0389	0.1635	0.0070				2			0
143.99	Elemental Sulfur, Other (%)	0472	0.1850	0.0100				2			0
148.01	Total Sulfur, Gravimetric - sulfate and elem... (%)	0105	0.1400	0.0200				1			0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (%)	0494	0.1785	0.0039	0.2406	0.0594	0.0122	4	-1.05	13%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (%)	0483	0.2300	0.0040	0.2406	0.0594	0.0122	4	-0.18	2%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (%)	0117	0.2326	0.0039	0.2406	0.0594	0.0122	4	-0.14	2%	0
148.07	Total Sulfur, ICP, test portion as in 2006.03... (%)	0527	0.3215	0.0370	0.2406	0.0594	0.0122	4	1.36	17%	0
148.99	Total Sulfur, Other (%)	0096	0.1781	0.0012	0.2245	0.0583	0.0014	3	-0.80	10%	0
148.99	Total Sulfur, Other (%)	0354	0.2055	0.0030	0.2245	0.0583	0.0014	3	-0.33	4%	0
148.99	Total Sulfur, Other (%)	0482	0.2900	0.0000	0.2245	0.0583	0.0014	3	1.12	15%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0521	0.0754	0.0000	0.1502	0.0674	0.0016	3	-1.11	25%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0423	0.1690	0.0020	0.1502	0.0674	0.0016	3	0.28	6%	0
149.04	Sulfur - HNO3 soluble, ICP (%)	0524	0.2062	0.0029	0.1502	0.0674	0.0016	3	0.83	19%	0
151.00	Acid Soluble Arsenic , AA, test portion as in... (ppm)	0136	0.2500	0.1000				2			0
151.00	Acid Soluble Arsenic , AA, test portion as in... (ppm)	0200	0.3800	0.0000				2			0
151.30	Acid Soluble Arsenic , ICP (ppm)	0501	0.2957	0.0038				2			0
151.30	Acid Soluble Arsenic , ICP (ppm)	0394	0.3550	0.0100				2			0
151.30	Acid Soluble Arsenic , ICP (ppm)	0368	0.0000	0.0000				2			4
151.32	Acid Soluble Arsenic , ICP, 2006.03 (ppm)	0528	0.0000	0.0000				0			4
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified ... (ppm)	0527	0.5290	0.0100				1			0
151.33	Acid Soluble Arsenic , ICP, 2006.03 modified ... (ppm)	0515	0.0000	0.0000				1			4
151.34	Acid Soluble Arsenic , ICP, EPA 3050B/6010C (ppm)	0515	0.1943	0.3885				0			4
151.99	Acid Soluble Arsenic , Other (ppm)	0519	0.2950	0.0100				1			0
165.30	Acid Soluble Boron , ICP, test portion in 982... (%)	0521	0.0004	0.0000				2			0
165.30	Acid Soluble Boron , ICP, test portion in 982... (%)	0354	0.0075	0.0030				2			0
165.30	Acid Soluble Boron , ICP, test portion in 982... (%)	0389	0.0000	0.0000				2			4
165.99	Acid Soluble Boron , Other (%)	0524	0.0136	0.0000				2			0
165.99	Acid Soluble Boron , Other (%)	0527	0.0140	0.0060				2			0
181.00	Acid Soluble Cadmium , AA, test portion as in... (ppm)	0136	0.0800	0.0400				1			0
181.30	Acid Soluble Cadmium , ICP (ppm)	0501	0.0750	0.0151	0.1156	0.0571	0.0106	4	-0.71	18%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0394	0.0900	0.0200	0.1156	0.0571	0.0106	4	-0.45	11%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0524	0.0973	0.0071	0.1156	0.0571	0.0106	4	-0.32	8%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0389	0.2000	0.0000	0.1156	0.0571	0.0106	4	1.48	37%	0
181.30	Acid Soluble Cadmium , ICP (ppm)	0368	0.0000	0.0000	0.1156	0.0571	0.0106	4			4

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			Value	Range	Rob Mean	Rob SD	R-bar				
181.32	Acid Soluble Cadmium , ICP, 2006.03 (ppm)	0528	0.1450	0.0300				1			0
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified ... (ppm)	0527	0.0705	0.0090				1			0
181.33	Acid Soluble Cadmium , ICP, 2006.03 modified ... (ppm)	0515	0.0000	0.0000				1			4
181.34	Acid Soluble Cadmium , ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
181.99	Acid Soluble Cadmium , Other (ppm)	0519	0.0950	0.0100				1			0
191.30	Acid Soluble Chromium , ICP (ppm)	0501	3.298	0.0170	17.31	6.998	0.9634	8	-1.83	40%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0482	8.285	2.630	17.31	6.998	0.9634	8	-1.18	26%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0394	18.80	0.2000	17.31	6.998	0.9634	8	0.19	4%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0523	19.62	1.110	17.31	6.998	0.9634	8	0.30	7%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0444	19.69	0.1500	17.31	6.998	0.9634	8	0.31	7%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0389	20.80	0.2000	17.31	6.998	0.9634	8	0.46	10%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0368	21.60	2.600	17.31	6.998	0.9634	8	0.56	12%	0
191.30	Acid Soluble Chromium , ICP (ppm)	0096	22.90	0.8000	17.31	6.998	0.9634	8	0.73	16%	0
191.32	Acid Soluble Chromium , ICP, 2006.03 (ppm)	0528	23.75	0.3000				1			0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0515	19.95	3.397	23.34	2.744	1.990	5	-1.24	7%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0494	20.88	3.436	23.34	2.744	1.990	5	-0.90	5%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0037	24.43	0.2900	23.34	2.744	1.990	5	0.40	2%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0527	25.72	1.816	23.34	2.744	1.990	5	0.87	5%	0
191.33	Acid Soluble Chromium , ICP, 2006.03 modified... (ppm)	0117	25.74	1.010	23.34	2.744	1.990	5	0.87	5%	0
191.34	Acid Soluble Chromium , ICP, EPA 3050B/6010C (ppm)	0515	22.66	0.5250				1			0
191.99	Acid Soluble Chromium , Other (ppm)	0519	2.390	0.0600				1			0
202.30	Acid Soluble Cobalt , ICP (ppm)	0389	0.8000	0.0000	1.034	0.2497	0.1581	4	-0.94	11%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0523	0.9180	0.0220	1.034	0.2497	0.1581	4	-0.46	6%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0368	1.039	0.6020	1.034	0.2497	0.1581	4	0.02	0%	0
202.30	Acid Soluble Cobalt , ICP (ppm)	0524	1.379	0.0085	1.034	0.2497	0.1581	4	1.38	17%	0
202.32	Acid Soluble Cobalt , ICP, 2006.03 (ppm)	0528	1.310	0.0400				1			0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0494	1.046	0.0957				2			0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0527	1.094	0.0230				2			0
202.33	Acid Soluble Cobalt , ICP, 2006.03 modified w... (ppm)	0515	0.0000	0.0000				2			4
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	0501	0.3198	0.0072				1			0
202.34	Acid Soluble Cobalt , ICP, EPA 3050B/6010C (ppm)	0515	0.0754	0.1508				1			4
202.99	Acid Soluble Cobalt , Other (ppm)	0519	0.2900	0.0200				1			0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0433	0.0002	0.0001				2			0
221.30	Acid Soluble Copper , ICP, test portion inorg... (%)	0354	0.0040	0.0020				2			0
221.32	Acid Soluble Copper , ICP, test portion 2006.... (%)	0521	0.0001	0.0000				2			0
221.32	Acid Soluble Copper , ICP, test portion 2006.... (%)	0394	0.0004	0.0001				2			0
221.32	Acid Soluble Copper , ICP, test portion 2006.... (%)	0528	0.0000	0.0000				2			4
221.33	Acid Soluble Copper , ICP, test portion 2006.... (%)	0527	0.0001	0.0000				2			0
221.33	Acid Soluble Copper , ICP, test portion 2006.... (%)	0515	0.0010	0.0000				2			0
221.99	Acid Soluble Copper , Other (%)	0501	0.0002	0.0000	0.0006	0.0003	0.0001	5	-0.93	32%	0
221.99	Acid Soluble Copper , Other (%)	0524	0.0003	0.0000	0.0006	0.0003	0.0001	5	-0.68	23%	0
221.99	Acid Soluble Copper , Other (%)	0389	0.0005	0.0000	0.0006	0.0003	0.0001	5	-0.16	5%	0
221.99	Acid Soluble Copper , Other (%)	0515	0.0008	0.0006	0.0006	0.0003	0.0001	5	0.62	21%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
221.99	Acid Soluble Copper , Other (%)	0519	0.0010	0.0000	0.0006	0.0003	0.0001	5	1.14	39%	0
221.99	Acid Soluble Copper , Other (%)	0368	0.0001	0.0001	0.0006	0.0003	0.0001	5			4
241.00	Acid Soluble Iron, AA, inorganic 965.09 (%)	0105	0.0525	0.0010				1			0
241.03	Acid Soluble Iron, AA, 965.09, test portion 2... (%)	0105	0.0525	0.0070				1			0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (%)	0482	0.0450	0.0100	0.0496	0.0030	0.0036	7	-1.40	5%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (%)	0483	0.0476	0.0033	0.0496	0.0030	0.0036	7	-0.63	2%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (%)	0096	0.0500	0.0000	0.0496	0.0030	0.0036	7	0.12	0%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (%)	0402	0.0500	0.0000	0.0496	0.0030	0.0036	7	0.12	0%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (%)	0472	0.0500	0.0000	0.0496	0.0030	0.0036	7	0.12	0%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (%)	0351	0.0505	0.0090	0.0496	0.0030	0.0036	7	0.27	1%	0
241.30	Acid Soluble Iron, ICP, test portion inorgani... (%)	0354	0.0565	0.0030	0.0496	0.0030	0.0036	7	2.09	7%	0
241.32	Acid Soluble Iron, ICP, test portion 2006.03A... (%)	0521	0.0187	0.0000				2			0
241.32	Acid Soluble Iron, ICP, test portion 2006.03A... (%)	0423	0.0455	0.0010				2			0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (%)	0494	0.0464	0.0065	0.0506	0.0038	0.0035	3	-1.13	4%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (%)	0527	0.0520	0.0020	0.0506	0.0038	0.0035	3	0.37	1%	0
241.33	Acid Soluble Iron, ICP, test portion 2006.03A... (%)	0117	0.0535	0.0021	0.0506	0.0038	0.0035	3	0.76	3%	0
241.99	Acid Soluble Iron, Other (%)	0389	0.0465	0.0013				2			0
241.99	Acid Soluble Iron, Other (%)	0524	0.0522	0.0003				2			0
251.00	Acid Soluble Lead , AA, test portion as in 20... (ppm)	0136	3.000	0.0000				1			0
251.30	Acid Soluble Lead , ICP (ppm)	0444	2.620	0.2000	3.742	0.9391	0.1374	7	-1.08	15%	0
251.30	Acid Soluble Lead , ICP (ppm)	0523	2.785	0.1100	3.742	0.9391	0.1374	7	-0.92	13%	0
251.30	Acid Soluble Lead , ICP (ppm)	0394	3.655	0.0500	3.742	0.9391	0.1374	7	-0.08	1%	0
251.30	Acid Soluble Lead , ICP (ppm)	0524	3.815	0.0098	3.742	0.9391	0.1374	7	0.07	1%	0
251.30	Acid Soluble Lead , ICP (ppm)	0096	3.900	0.2000	3.742	0.9391	0.1374	7	0.15	2%	0
251.30	Acid Soluble Lead , ICP (ppm)	0389	4.600	0.0000	3.742	0.9391	0.1374	7	0.83	11%	0
251.30	Acid Soluble Lead , ICP (ppm)	0501	4.822	0.3920	3.742	0.9391	0.1374	7	1.04	14%	0
251.30	Acid Soluble Lead , ICP (ppm)	0368	0.0000	0.0000	3.742	0.9391	0.1374	7			4
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0037	3.610	0.0200	3.786	0.2666	0.1380	3	-0.66	2%	0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0494	3.656	0.3861	3.786	0.2666	0.1380	3	-0.49	2%	0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0527	4.093	0.0080	3.786	0.2666	0.1380	3	1.15	4%	0
251.33	Acid Soluble Lead , ICP, 2006.03 modified w/9... (ppm)	0515	0.4496	0.8992	3.786	0.2666	0.1380	3			4
251.34	Acid Soluble Lead , ICP, EPA 3050B/6010C (ppm)	0515	0.5965	1.193				0			4
251.99	Acid Soluble Lead , Other (ppm)	0519	3.600	0.1800				1			0
261.12	Acid Soluble Manganese , AA, inorganic 965.09 (%)	0105	0.0046	0.0004				1			0
261.15	Acid Soluble Manganese , AA, 965.09, test por... (%)	0105	0.0046	0.0006				1			0
261.30	Acid Soluble Manganese , ICP, test portion 97... (%)	0096	0.0046	0.0002				2			0
261.30	Acid Soluble Manganese , ICP, test portion 97... (%)	0354	0.0050	0.0000				2			0
261.32	Acid Soluble Manganese , ICP, test portion in... (%)	0483	0.0046	0.0003				2			0
261.32	Acid Soluble Manganese , ICP, test portion in... (%)	0351	0.0050	0.0000				2			0
261.33	Acid Soluble Manganese , ICP, test portion or... (%)	0291	2.440	0.0200				1			0
261.34	Acid Soluble Manganese , ICP, test portion 20... (%)	0521	0.0020	0.0000				2			0
261.34	Acid Soluble Manganese , ICP, test portion 20... (%)	0423	0.0046	0.0001				2			0
261.35	Acid Soluble Manganese , ICP, test portion 20... (%)	0527	0.0040	0.0000	0.0045	0.0005	0.0004	3	-1.02	6%	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Threshold %RSD	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
261.35	Acid Soluble Manganese , ICP, test portion 20... (%)	0494	0.0046	0.0009	0.0045	0.0005	0.0004	3	0.03	0%	0
261.35	Acid Soluble Manganese , ICP, test portion 20... (%)	0117	0.0051	0.0003	0.0045	0.0005	0.0004	3	0.98	6%	0
261.99	Acid Soluble Manganese , Other (%)	0389	0.0043	0.0000				2			0
261.99	Acid Soluble Manganese , Other (%)	0524	0.0046	0.0001				2			0
281.30	Acid Soluble Mercury , ICP (ppm)	0501	0.0285	0.0154	0.2784	0.4237	0.1584	4	-0.59	45%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0394	0.0340	0.0060	0.2784	0.4237	0.1584	4	-0.58	44%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0527	0.1420	0.0760	0.2784	0.4237	0.1584	4	-0.32	24%	0
281.30	Acid Soluble Mercury , ICP (ppm)	0515	0.9090	0.5360	0.2784	0.4237	0.1584	4	1.49	113%	0
281.99	Acid Soluble Mercury , Other (ppm)	0519	0.0100	0.0000				1			0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0433	1.541	0.0900	2.431	1.403	0.6650	5	-0.63	18%	0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0521	1.697	0.0000	2.431	1.403	0.6650	5	-0.52	15%	0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0096	2.000	0.2000	2.431	1.403	0.6650	5	-0.31	9%	0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0524	2.005	0.1050	2.431	1.403	0.6650	5	-0.30	9%	0
289.30	Acid Soluble Molybdenum , ICP (ppm)	0368	4.915	2.930	2.431	1.403	0.6650	5	1.77	51%	0
289.32	Acid Soluble Molybdenum , ICP, 2006.03 (ppm)	0394	2.110	0.1600				2			0
289.32	Acid Soluble Molybdenum , ICP, 2006.03 (ppm)	0528	46.52	0.0700				2			0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (ppm)	0494	1.785	0.2719	2.050	0.2321	0.1396	3	-1.14	6%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (ppm)	0527	2.152	0.0770	2.050	0.2321	0.1396	3	0.44	2%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (ppm)	0037	2.215	0.0700	2.050	0.2321	0.1396	3	0.71	4%	0
289.33	Acid Soluble Molybdenum , ICP, 2006.03 modifi... (ppm)	0515	0.0000	0.0000	2.050	0.2321	0.1396	3			4
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010... (ppm)	0515	1.108	1.076				2			0
289.34	Acid Soluble Molybdenum , ICP, EPA 3050B/6010... (ppm)	0501	2.280	0.5530				2			0
289.99	Acid Soluble Molybdenum , Other (ppm)	0519	0.0100	0.0000				1			0
291.00	Acid Soluble Nickel , AA, test portion as in ... (ppm)	0136	13.50	1.000				1			0
291.30	Acid Soluble Nickel , ICP (ppm)	0521	2.509	0.0000	9.889	3.783	0.2968	8	-1.78	37%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0482	5.150	0.5000	9.889	3.783	0.2968	8	-1.15	24%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0523	10.38	0.0800	9.889	3.783	0.2968	8	0.12	2%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0394	10.90	0.2000	9.889	3.783	0.2968	8	0.24	5%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0444	11.07	0.2200	9.889	3.783	0.2968	8	0.29	6%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0524	11.79	0.3744	9.889	3.783	0.2968	8	0.46	10%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0368	12.75	0.7000	9.889	3.783	0.2968	8	0.69	14%	0
291.30	Acid Soluble Nickel , ICP (ppm)	0096	12.85	0.3000	9.889	3.783	0.2968	8	0.72	15%	0
291.32	Acid Soluble Nickel , ICP, 2006.03 (ppm)	0528	12.90	0.1200				1			0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0515	9.769	2.769	12.96	2.168	1.223	5	-1.47	12%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0494	12.09	1.856	12.96	2.168	1.223	5	-0.40	3%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0527	13.33	0.3630	12.96	2.168	1.223	5	0.17	1%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0037	14.14	0.1900	12.96	2.168	1.223	5	0.54	5%	0
291.33	Acid Soluble Nickel , ICP, 2006.03 modified w... (ppm)	0117	15.48	0.9400	12.96	2.168	1.223	5	1.16	10%	0
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	0501	1.718	0.0330				2			0
291.34	Acid Soluble Nickel , ICP, EPA 3050B/6010C (ppm)	0515	11.31	1.616				2			0
291.99	Acid Soluble Nickel , Other (ppm)	0519	2.265	0.3100				1			0
301.30	Acid Soluble Selenium , ICP (ppm)	0524	0.1440	0.0032				2			0
301.30	Acid Soluble Selenium , ICP (ppm)	0501	0.4476	0.0252				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				
301.30	Acid Soluble Selenium , ICP (ppm)	0368	0.0000	0.0000				2			4
301.33	Acid Soluble Selenium , ICP, 2006.03 modified...	0527	0.4565	0.0270				1			0
301.33	Acid Soluble Selenium , ICP, 2006.03 modified...	0515	0.0000	0.0000				1			4
301.34	Acid Soluble Selenium , ICP, EPA 3050B/6010C (ppm)	0515	0.7715	1.543				0			4
301.99	Acid Soluble Selenium , Other (ppm)	0519	0.0400	0.0200				1			0
311.32	Sodium, ICP, 2006.03 test portion (%)	0521	0.0720	0.0000				2			0
311.32	Sodium, ICP, 2006.03 test portion (%)	0025	0.1585	0.0049				2			0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0494	0.1485	0.0071	0.1643	0.0137	0.0047	3	-1.15	5%	0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0423	0.1720	0.0040	0.1643	0.0137	0.0047	3	0.56	2%	0
311.33	Sodium, ICP, 2006.03 modified w/9:3 HNO3:HCl ... (%)	0527	0.1725	0.0030	0.1643	0.0137	0.0047	3	0.60	2%	0
311.99	Sodium, Other (%)	0482	0.1700	0.0000	0.1913	0.0327	0.0053	3	-0.65	6%	0
311.99	Sodium, Other (%)	0096	0.1750	0.0100	0.1913	0.0327	0.0053	3	-0.50	4%	0
311.99	Sodium, Other (%)	0354	0.2290	0.0060	0.1913	0.0327	0.0053	3	1.15	10%	0
321.00	Acid Soluble Zinc , AA, inorganic 965.09 (%)	0105	0.0022	0.0003				1			0
321.30	Acid Soluble Zinc , ICP, test portion inorgan...	0444	0.0016	0.0001	0.0618	0.1304	0.0025	5	-0.40	49%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan...	0351	0.0020	0.0000	0.0618	0.1304	0.0025	5	-0.40	48%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan...	0354	0.0050	0.0020	0.0618	0.1304	0.0025	5	-0.38	46%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan...	0433	0.0052	0.0006	0.0618	0.1304	0.0025	5	-0.38	46%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan...	0292	0.2950	0.0100	0.0618	0.1304	0.0025	5	1.56	189%	0
321.30	Acid Soluble Zinc , ICP, test portion inorgan...	0096	84.85	11.30	0.0618	0.1304	0.0025	5	567.55	68654%	2
321.32	Acid Soluble Zinc , ICP, test portion 2006.03...	0521	0.0007	0.0000	0.0013	0.0005	0.0004	3	-1.15	22%	0
321.32	Acid Soluble Zinc , ICP, test portion 2006.03...	0394	0.0015	0.0010	0.0013	0.0005	0.0004	3	0.52	10%	0
321.32	Acid Soluble Zinc , ICP, test portion 2006.03...	0423	0.0016	0.0001	0.0013	0.0005	0.0004	3	0.63	12%	0
321.32	Acid Soluble Zinc , ICP, test portion 2006.03...	0528	0.0010	0.0020	0.0013	0.0005	0.0004	3			4
321.33	Acid Soluble Zinc , ICP, test portion 2006.03...	0494	0.0015	0.0000	4.604	9.204	0.4352	4	-0.50	50%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03...	0515	0.0015	0.0008	4.604	9.204	0.4352	4	-0.50	50%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03...	0527	0.0020	0.0000	4.604	9.204	0.4352	4	-0.50	50%	0
321.33	Acid Soluble Zinc , ICP, test portion 2006.03...	0037	18.41	1.740	4.604	9.204	0.4352	4	1.50	150%	0
321.99	Acid Soluble Zinc , Other (%)	0519	0.0010	0.0000	0.0017	0.0004	0.0002	7	-1.54	21%	0
321.99	Acid Soluble Zinc , Other (%)	0515	0.0015	0.0001	0.0017	0.0004	0.0002	7	-0.55	7%	0
321.99	Acid Soluble Zinc , Other (%)	0389	0.0016	0.0001	0.0017	0.0004	0.0002	7	-0.33	4%	0
321.99	Acid Soluble Zinc , Other (%)	0368	0.0017	0.0004	0.0017	0.0004	0.0002	7	0.00	0%	0
321.99	Acid Soluble Zinc , Other (%)	0501	0.0019	0.0003	0.0017	0.0004	0.0002	7	0.33	4%	0
321.99	Acid Soluble Zinc , Other (%)	0200	0.0020	0.0001	0.0017	0.0004	0.0002	7	0.55	7%	0
321.99	Acid Soluble Zinc , Other (%)	0524	0.0025	0.0002	0.0017	0.0004	0.0002	7	1.76	24%	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 asterix 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.