

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 210411

Potash

### Statistical Summary

# Methods: 106

# Labs Reporting: 85

Issue Date : 05/31/2021

Method Code	Analyte & Method Sample # 210411	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Horwitz %RSD
001.99	Ammoniacal N, Other (%)	1		0.0008									
002.99	Nitrate N, Other (%)	1		0.0069									
010.12	Total N, Salicylic (%)	1		0.0036									
010.60	Total N, Combustion (%)	4	2	15.30	30.57	30.60	0.8660	43.21	38.19	141.23%	116.27	1.354	1.81%
010.99	Total N, Other (%)	1		0.0542									
020.50	Total P2O5, ICP (%)	3	1	0.0006	0.0005	30.60		43.21	54.01	141.23%		0.0002	1.81%
041.20	Direct Available P2O5, Spectrophotometric (%)	1		0.0070									
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	2	1	0.0063	0.0088								
041.50	Direct Available P2O5, ICP (%)	1		0.0000									
050.00	Soluble K2O, STPB Oxalate (62%)	11	10	62.40	0.7458	62.45	1.8045	0.6874	0.2717	1.10%	0.89	0.1197	1.27%
050.30	Soluble K2O, AA (Oxalate) (62%)	4	4	62.74	3.663	62.74	1.8074	3.663	2.290	5.84%	4.72	1.313	1.26%
050.31	Soluble K2O, AA (Citrate) (62%)	3	3	61.24	2.078	61.24	1.7924	2.078	1.500	3.39%	2.70	0.5833	1.28%
050.50	Soluble K2O, ICP (Oxalate) (62%)	8	8	61.77	4.190	62.49	1.8049	2.863	1.265	4.58%	3.70	1.484	1.26%
050.51	Soluble K2O, ICP (Citrate) (62%)	5	5	61.60	3.142	61.60	1.7960	3.142	1.757	5.10%	4.08	0.2700	1.27%
050.52	Soluble K2O, ICP (Citrate-EDTA) (62%)	10	10	61.57	1.180	61.57	1.7957	1.338	0.5290	2.17%	1.74	0.6020	1.27%
050.60	Soluble K2O, Flame Photometric (Oxalate) (62%)	2	2	62.23	1.359								
050.61	Soluble K2O, Flame Photometric (Citrate) (62%)	1		61.96									
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (62%)	3	3	63.04	1.771	63.04	1.8104	1.771	1.278	2.81%	2.28	0.7600	1.26%
050.99	Soluble K2O, Other (62%)	38	36	61.94	2.055	62.29	1.8029	1.286	0.2679	2.06%	1.66	0.5351	1.27%
060.00	Water (Free), Vacuum Oven (%)	1		0.5000									
060.30	Water (Free), AFPC No. 2B (105°C oven for 2 hours, 5g sample) (%)	2	2	0.0375	0.0035								
060.99	Water (Free), Other (%)	6	5	0.1117	0.1284	0.1241		0.1396	0.0780	112.51%		0.0593	5.48%
101.00	Acid Soluble Ca, AA, inorganic 965.09 (%)	1		0.0067									
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	2	2	0.0154	0.0136								
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	2	1	0.0106	0.0135								
101.99	Acid Soluble Ca, Other (%)	1		0.0061									
121.00	Acid Soluble Mg, AA, inorganic 965.09 (%)	1		0.0039									
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	2	1	0.0062	0.0054								
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	2	0	0.0055	0.0064								
121.99	Acid Soluble Mg, Other (%)	2	2	0.0028	0.0001								
143.99	Elemental S, Other (%)	1		21.50									
145.99	Sulfate S, HCl soluble, Other (%)	1		0.0145									
148.99	Total S, Other (%)	1		0.0200									

Method Code	Analyte & Method Sample # 210411	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Howitz %RSD
149.04	S - HNO3 soluble, ICP (%)	1		0.0035									
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.2000									
151.30	Acid Soluble As, ICP (ppm)	2	2	0.0512	0.0676								
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	2	2	0.4300	0.5940								
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	3	1	0.4001	0.5291	0.4300		0.5940	0.7425	138.13%		0.0098	18.16%
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	1		0.3000									
151.99	Acid Soluble As, Other (ppm)	3	2	1.033	0.8737	1.400		0.8485	0.7500	60.61%		0.4000	15.21%
165.00	Acid Soluble B, Spectrophotometric (%)	1		0.0010									
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	1		0.0100									
165.99	Acid Soluble B, Other (%)	3	2	0.0035	0.0057	0.0002	0.0030	0.0001	0.0001	70.71%	0.11	0.0000	14.41%
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.1000									
181.30	Acid Soluble Cd, ICP (ppm)	2	0	0.0002	0.0002								
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	2	0	0.0550	0.0636								
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	3	1	0.3487	0.5645	0.0002		0.0001	0.0002	70.71%		0.0031	22.00%
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	1		0.1000									
181.99	Acid Soluble Cd, Other (ppm)	4	1	0.4750	0.7474	0.0002		0.0001	0.0002	70.71%		0.0200	22.00%
190.00	Water Soluble Cl, Titrimetric (%)	17	16	47.21	1.056	47.28	1.0000	1.015	0.3171	2.15%	2.36	0.2865	1.45%
190.99	Water Soluble Cl, Other (%)	6	6	47.69	2.686	47.04	1.0000	1.377	0.7027	2.93%	3.21	0.7700	1.46%
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.5000									
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	1		0.1550									
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	3	0	0.4500	0.6946	47.04		1.377		2.93%		0.0000	8.96%
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	1		0.1860									
191.99	Acid Soluble Cr, Other (ppm)	3	2	0.4450	0.4877	0.1675		0.1167	0.1031	69.66%		0.1550	20.93%
202.30	Acid Soluble Co, ICP (ppm)	1		0.0699									
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	4	2	0.7962	0.9358	0.9673	1.2902	1.315	1.162	135.92%	2.37	0.9609	16.08%
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	1		0.7530									
202.99	Acid Soluble Co, Other (ppm)	4	2	3.227	5.859	6.010	2.8029	8.472	7.488	140.97%	7.04	0.3090	12.21%
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	1		0.0050									
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	2	0	0.0050	0.0071								
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	3	0	0.0009	0.0014	6.010	0.6060	8.472		140.97%	32.58	0.0000	3.05%
221.99	Acid Soluble Cu, Other (%)	3	1	0.0001	0.0000	6.010	0.6060	8.472	10.59	140.97%	32.58	0.0001	3.05%
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	1		0.0050									
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	1		0.0100									
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	2	0	0.0001	0.0000								
241.99	Acid Soluble Fe, Other (%)	1		0.0005									
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.5000									
251.30	Acid Soluble Pb, ICP (ppm)	2	1	0.0266	0.0319								
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	1		0.1000									
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	4	1	1.667	1.932	6.010		8.472	10.59	140.97%		3.197	12.21%
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	1		0.6000									
251.99	Acid Soluble Pb, Other (ppm)	4	3	3.271	6.021	4.295		6.934	5.004	161.45%		0.3100	12.85%
261.00	Acid Soluble Mn, AA, Mn2+ only (%)	1		0.0050									
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	1		0.0100									
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	2	0	0.0001	0.0000								

Method Code	Analyte & Method Sample # 210411	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Horwitz %RSD
281.00	Acid Soluble Hg, AA (ppm)	1		0.5000									
281.30	Acid Soluble Hg, ICP (ppm)	3	0	0.0087	0.0100	4.295		6.934		161.45%		0.0000	12.85%
281.99	Acid Soluble Hg, Other (ppm)	4	1	0.0064	0.0046	4.295		6.934	8.668	161.45%		0.0005	12.85%
289.30	Acid Soluble Mo, ICP (ppm)	2	1	0.0064	0.0090								
289.32	Acid Soluble Mo, ICP, 2006.03 (ppm)	1		0.3500									
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	3	2	2.632	3.516	3.324	1.9971	4.675	4.132	140.66%	5.45	0.1712	13.35%
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	1		0.1000									
289.99	Acid Soluble Mo, Other (ppm)	1		0.2400									
291.30	Acid Soluble Ni, ICP (ppm)	1		0.0349									
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	1		0.2650									
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	4	1	0.9229	1.103	3.324		4.675	5.844	140.66%		0.5233	13.35%
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	1		0.3000									
291.99	Acid Soluble Ni, Other (ppm)	4	3	2.680	4.208	3.241		4.968	3.585	153.31%		0.6617	13.40%
301.00	Acid Soluble Se, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.5000									
301.30	Acid Soluble Se, ICP (ppm)	1		0.0052									
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	1		0.3000									
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	2	1	0.4552	0.6424								
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	1		0.9000									
301.99	Acid Soluble Se, Other (ppm)	4	3	0.8084	0.3656	0.8112		0.4477	0.3231	55.19%		0.0490	16.51%
311.00	Sodium, AA (%)	5	5	0.3088	0.1672	0.3088	0.0359	0.1672	0.0935	54.14%	10.86	0.0072	4.77%
311.30	Sodium, Flame Photometric (%)	2	2	1.084	0.4540								
311.32	Sodium, ICP, 2006.03 test portion (%)	1		0.3900									
311.33	Sodium, ICP, test portion as in 2017.02 (%)	5	5	0.3658	0.0541	0.3658	0.0416	0.0541	0.0303	14.80%	3.03	0.0114	4.65%
311.99	Sodium, Other (%)	5	4	0.3796	0.0946	0.3495	0.0399	0.0767	0.0479	21.94%	4.47	0.0427	4.69%
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	1		0.0020									
321.02	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C (%)	1		10.00									
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	2	0	0.0050	0.0071								
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	3	0	0.0009	0.0014	0.3495	0.0399	0.0767		21.94%	4.47	0.0000	4.69%
321.99	Acid Soluble Zn, Other (%)	4	2	1.058	2.114	2.114	0.2164	2.989	2.642	141.38%	32.18	0.8051	3.57%

The Method IA Ratio = 2.33 \* Robust SD / IA at the Method Assigned Value. IA ratios of 1 and less indicate participant data dispersion is as good or less than the IA. Red indicates the IA ratio is significantly greater than 1, Orange indicates marginally greater than 1, Green indicates IA ratio is not significantly greater than 1 and Grey indicates < 6 labs reporting. The Horwitz %RSD is calculated using the Thompson Modification, Analyst,2000,125,385-386.

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 210411

### Method Precision Report

Potash

Issue Date : 05/31/2021

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
050.00	Soluble K2O, STPB Oxalate (62%)	11	9	62.33	0.5155	0.5131	0.0700	0.5178	0.82%	0.11%	0.83%	7.396
050.50	Soluble K2O, ICP (Oxalate) (62%)	8	7	63.11	1.980	1.754	1.299	2.183	2.78%	2.06%	3.46%	1.680
050.52	Soluble K2O, ICP (Citrate-EDTA) (62%)	10	9	61.59	1.248	1.219	0.3773	1.276	1.98%	0.61%	2.07%	3.382
050.99	Soluble K2O, Other (62%)	38	34	62.29	1.214	1.178	0.4100	1.248	1.89%	0.66%	2.00%	3.044
190.00	Water Soluble Cl, Titrimetric (%)	17	15	47.32	0.9733	0.9605	0.2224	0.9859	2.03%	0.47%	2.08%	4.433
190.99	Water Soluble Cl, Other (%)	6	5	46.63	0.7504	0.6132	0.6117	0.8662	1.32%	1.31%	1.86%	1.416
311.33	Sodium, ICP, test portion as in 2017.02 (%)	5	5	0.3658	0.0541	0.0537	0.0095	0.0545	14.68%	2.60%	14.91%	5.732

Notes: Precision data calculated when 5 or more Tests included.

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 210411

Lab Values

# Methods: 106

# Labs Reporting: 85

Issue Date : 05/31/2021

Potash

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001.99	Ammoniacal N, Other (%)	0553	0.0008	0.0000				1			0
002.99	Nitrate N, Other (%)	0553	0.0069	0.0001				1			0
010.12	Total N, Salicylic (%)	0568	0.0036	0.0007				1			0
010.60	Total N, Combustion (%)	0354	0.0405	0.0070				2			0
010.60	Total N, Combustion (%)	0042	61.15	2.700				2			0
010.60	Total N, Combustion (%)	0325	0.0000	0.0000				2			4
010.60	Total N, Combustion (%)	0422	0.0000	0.0000				2			4
010.99	Total N, Other (%)	0524	0.0542	0.0107				1			0
020.50	Total P2O5, ICP (%)	0524	0.0007	0.0002				1			0
020.50	Total P2O5, ICP (%)	0422	0.0000	0.0000				1			4
020.50	Total P2O5, ICP (%)	0527	< 0.001					1			5
041.20	Direct Available P2O5, Spectrophotometric (%)	0553	< 0.007					0			5
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	0354	0.0125	0.0010				1			0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	0568	0.0000	0.0000				1			4
041.50	Direct Available P2O5, ICP (%)	0325	0.0000	0.0000				0			4
050.00	Soluble K2O, STPB Oxalate (62%)	0550	61.80	0.1000	62.45	0.6874	0.1197	10	-0.88	OK	0
050.00	Soluble K2O, STPB Oxalate (62%)	0522	61.84	0.0868	62.45	0.6874	0.1197	10	-0.82	OK	0
050.00	Soluble K2O, STPB Oxalate (62%)	0494	61.95	0.0400	62.45	0.6874	0.1197	10	-0.67	OK	0
050.00	Soluble K2O, STPB Oxalate (62%)	0055	61.98	0.1200	62.45	0.6874	0.1197	10	-0.63	OK	0
050.00	Soluble K2O, STPB Oxalate (62%)	0444	62.28	0.1400	62.45	0.6874	0.1197	10	-0.23	OK	0
050.00	Soluble K2O, STPB Oxalate (62%)	0231	62.34	0.1100	62.45	0.6874	0.1197	10	-0.15	OK	0
050.00	Soluble K2O, STPB Oxalate (62%)	0049	62.71	0.1100	62.45	0.6874	0.1197	10	0.35	OK	0
050.00	Soluble K2O, STPB Oxalate (62%)	0405	62.78	0.0300	62.45	0.6874	0.1197	10	0.44	OK	0
050.00	Soluble K2O, STPB Oxalate (62%)	0220	63.33	0.1000	62.45	0.6874	0.1197	10	1.19	OK	0
050.00	Soluble K2O, STPB Oxalate (62%)	0114	63.97	0.3600	62.45	0.6874	0.1197	10	2.06	OK	0
050.00	Soluble K2O, STPB Oxalate (62%)	0102	61.44	2.750	62.45	0.6874	0.1197	10	-1.37	OK	1
050.30	Soluble K2O, AA (Oxalate) (62%)	0157	58.70	3.600	62.74	3.663	1.313	4	-1.10		0
050.30	Soluble K2O, AA (Oxalate) (62%)	0356	62.21	0.5600	62.74	3.663	1.313	4	-0.14		0
050.30	Soluble K2O, AA (Oxalate) (62%)	0040	62.45	0.5000	62.74	3.663	1.313	4	-0.08		0
050.30	Soluble K2O, AA (Oxalate) (62%)	0073	67.60	0.5900	62.74	3.663	1.313	4	1.33		0
050.31	Soluble K2O, AA (Citrate) (62%)	0472	59.14	1.530	61.24	2.078	0.5833	3	-1.01		0
050.31	Soluble K2O, AA (Citrate) (62%)	0498	61.30	0.2000	61.24	2.078	0.5833	3	0.03		0
050.31	Soluble K2O, AA (Citrate) (62%)	0455	63.29	0.0200	61.24	2.078	0.5833	3	0.99		0
050.50	Soluble K2O, ICP (Oxalate) (62%)	0324	52.45	2.100	62.49	2.863	1.484	8	-3.21	Low	0
050.50	Soluble K2O, ICP (Oxalate) (62%)	0055	60.45	0.2900	62.49	2.863	1.484	8	-0.65	Low	0
050.50	Soluble K2O, ICP (Oxalate) (62%)	0292	61.27	0.4600	62.49	2.863	1.484	8	-0.39	OK	0



Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050.50	Soluble K2O, ICP (Oxalate) (62%)	0230	62.00	2.000	62.49	2.863	1.484	8	-0.16	OK	0
050.50	Soluble K2O, ICP (Oxalate) (62%)	0444	62.92	0.2300	62.49	2.863	1.484	8	0.13	OK	0
050.50	Soluble K2O, ICP (Oxalate) (62%)	0422	64.65	0.9000	62.49	2.863	1.484	8	0.69	High	0
050.50	Soluble K2O, ICP (Oxalate) (62%)	0106	64.78	2.200	62.49	2.863	1.484	8	0.73	High	0
050.50	Soluble K2O, ICP (Oxalate) (62%)	0086	65.68	3.694	62.49	2.863	1.484	8	1.02	High	0
050.51	Soluble K2O, ICP (Citrate) (62%)	0568	56.22	0.1400	61.60	3.142	0.2700	5	-1.71		0
050.51	Soluble K2O, ICP (Citrate) (62%)	0452	62.22	0.2300	61.60	3.142	0.2700	5	0.20		0
050.51	Soluble K2O, ICP (Citrate) (62%)	0291	62.47	0.0600	61.60	3.142	0.2700	5	0.28		0
050.51	Soluble K2O, ICP (Citrate) (62%)	0368	62.56	0.7898	61.60	3.142	0.2700	5	0.31		0
050.51	Soluble K2O, ICP (Citrate) (62%)	0131	64.52	0.1300	61.60	3.142	0.2700	5	0.93		0
050.52	Soluble K2O, ICP (Citrate-EDTA) (62%)	0486	59.93	0.1400	61.57	1.338	0.6020	10	-1.14	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (62%)	0025	59.95	0.7000	61.57	1.338	0.6020	10	-1.12	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (62%)	0043	60.60	0.8100	61.57	1.338	0.6020	10	-0.67	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (62%)	0377	61.24	0.6200	61.57	1.338	0.6020	10	-0.23	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (62%)	0485	61.30	2.000	61.57	1.338	0.6020	10	-0.18	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (62%)	0136	61.55	0.3000	61.57	1.338	0.6020	10	-0.01	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (62%)	0547	62.54	0.2100	61.57	1.338	0.6020	10	0.67	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (62%)	0354	62.65	0.1000	61.57	1.338	0.6020	10	0.75	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (62%)	0423	62.65	0.2400	61.57	1.338	0.6020	10	0.75	OK	0
050.52	Soluble K2O, ICP (Citrate-EDTA) (62%)	0023	63.25	0.9000	61.57	1.338	0.6020	10	1.17	OK	0
050.60	Soluble K2O, Flame Photometric (Oxalate) (62%)	0510	61.27	0.5248				2			0
050.60	Soluble K2O, Flame Photometric (Oxalate) (62%)	0169	63.20	0.1500				2			0
050.61	Soluble K2O, Flame Photometric (Citrate) (62%)	0035	61.96	1.190				1			0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (62%)	0029	61.36	0.2000	63.04	1.771	0.7600	3	-0.95		0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (62%)	0095	62.88	0.0800	63.04	1.771	0.7600	3	-0.09		0
050.62	Soluble K2O, Flame Photometric (Citrate-EDTA) (62%)	0034	64.89	2.000	63.04	1.771	0.7600	3	1.04		0
050.99	Soluble K2O, Other (62%)	0524	59.82	0.5026	62.29	1.286	0.5351	36	-1.92	Low	0
050.99	Soluble K2O, Other (62%)	0157	60.35	1.700	62.29	1.286	0.5351	36	-1.51	Low	0
050.99	Soluble K2O, Other (62%)	0532	60.41	0.1100	62.29	1.286	0.5351	36	-1.47	Low	0
050.99	Soluble K2O, Other (62%)	0451	60.47	1.630	62.29	1.286	0.5351	36	-1.42	Low	0
050.99	Soluble K2O, Other (62%)	0371	61.19	0.0000	62.29	1.286	0.5351	36	-0.85	OK	0
050.99	Soluble K2O, Other (62%)	0493	61.20	0.2000	62.29	1.286	0.5351	36	-0.85	OK	0
050.99	Soluble K2O, Other (62%)	0450	61.24	3.780	62.29	1.286	0.5351	36	-0.82	OK	0
050.99	Soluble K2O, Other (62%)	0537	61.34	0.0200	62.29	1.286	0.5351	36	-0.74	OK	0
050.99	Soluble K2O, Other (62%)	0538	61.68	0.0600	62.29	1.286	0.5351	36	-0.47	OK	0
050.99	Soluble K2O, Other (62%)	0169	61.69	0.1200	62.29	1.286	0.5351	36	-0.47	OK	0
050.99	Soluble K2O, Other (62%)	0421	61.80	0.4000	62.29	1.286	0.5351	36	-0.38	OK	0
050.99	Soluble K2O, Other (62%)	0540	61.86	0.2400	62.29	1.286	0.5351	36	-0.33	OK	0
050.99	Soluble K2O, Other (62%)	0549	61.87	0.0100	62.29	1.286	0.5351	36	-0.33	OK	0
050.99	Soluble K2O, Other (62%)	0569	61.87	0.0400	62.29	1.286	0.5351	36	-0.33	OK	0
050.99	Soluble K2O, Other (62%)	0564	62.04	0.0300	62.29	1.286	0.5351	36	-0.20	OK	0
050.99	Soluble K2O, Other (62%)	0565	62.04	0.0200	62.29	1.286	0.5351	36	-0.19	OK	0
050.99	Soluble K2O, Other (62%)	0518	62.10	0.4000	62.29	1.286	0.5351	36	-0.15	OK	0
050.99	Soluble K2O, Other (62%)	0563	62.15	0.0551	62.29	1.286	0.5351	36	-0.11	OK	0
050.99	Soluble K2O, Other (62%)	0553	62.15	0.5000	62.29	1.286	0.5351	36	-0.11	OK	0
050.99	Soluble K2O, Other (62%)	0559	62.20	0.0100	62.29	1.286	0.5351	36	-0.07	OK	0
050.99	Soluble K2O, Other (62%)	0536	62.23	0.1500	62.29	1.286	0.5351	36	-0.05	OK	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
050.99	Soluble K2O, Other (62%)	0561	62.39	0.0400	62.29	1.286	0.5351	36	0.08	OK	0
050.99	Soluble K2O, Other (62%)	0546	62.40	0.4900	62.29	1.286	0.5351	36	0.08	OK	0
050.99	Soluble K2O, Other (62%)	0433	62.62	0.3100	62.29	1.286	0.5351	36	0.25	OK	0
050.99	Soluble K2O, Other (62%)	0177	62.67	0.2397	62.29	1.286	0.5351	36	0.29	OK	0
050.99	Soluble K2O, Other (62%)	0533	62.68	0.0600	62.29	1.286	0.5351	36	0.30	OK	0
050.99	Soluble K2O, Other (62%)	0521	62.86	0.0000	62.29	1.286	0.5351	36	0.44	OK	0
050.99	Soluble K2O, Other (62%)	0527	62.86	0.2118	62.29	1.286	0.5351	36	0.44	OK	0
050.99	Soluble K2O, Other (62%)	0234	63.25	0.5000	62.29	1.286	0.5351	36	0.75	OK	0
050.99	Soluble K2O, Other (62%)	0556	63.60	0.0200	62.29	1.286	0.5351	36	1.02	OK	0
050.99	Soluble K2O, Other (62%)	0506	63.80	1.000	62.29	1.286	0.5351	36	1.17	OK	0
050.99	Soluble K2O, Other (62%)	0516	64.21	1.260	62.29	1.286	0.5351	36	1.49	High	0
050.99	Soluble K2O, Other (62%)	0325	64.30	1.000	62.29	1.286	0.5351	36	1.56	High	0
050.99	Soluble K2O, Other (62%)	0255	64.56	3.143	62.29	1.286	0.5351	36	1.77	High	0
050.99	Soluble K2O, Other (62%)	0027	64.58	0.2700	62.29	1.286	0.5351	36	1.78	High	0
050.99	Soluble K2O, Other (62%)	0572	65.10	0.7400	62.29	1.286	0.5351	36	2.19	High	0
050.99	Soluble K2O, Other (62%)	0523	53.75	6.300	62.29	1.286	0.5351	36	-6.64	Low	1
050.99	Soluble K2O, Other (62%)	0260	56.55	5.320	62.29	1.286	0.5351	36	-4.46	Low	1
060.00	Water (Free), Vacuum Oven (%)	0450	< 0.5					0			5
060.30	Water (Free), AFPC No. 2B (105°C oven for 2 hours, 5g sample) (%)	0498	0.0350	0.0100				2			0
060.30	Water (Free), AFPC No. 2B (105°C oven for 2 hours, 5g sample) (%)	0561	0.0400	0.0200				2			0
060.99	Water (Free), Other (%)	0510	0.0311	0.0015	0.1241	0.1396	0.0593	5	-0.58		0
060.99	Water (Free), Other (%)	0405	0.0360	0.0060	0.1241	0.1396	0.0593	5	-0.55		0
060.99	Water (Free), Other (%)	0220	0.0500	0.0800	0.1241	0.1396	0.0593	5	-0.46		0
060.99	Water (Free), Other (%)	0476	0.1433	0.0089	0.1241	0.1396	0.0593	5	0.12		0
060.99	Water (Free), Other (%)	0572	0.3600	0.2000	0.1241	0.1396	0.0593	5	1.48		0
060.99	Water (Free), Other (%)	0136	< 0.05		0.1241	0.1396	0.0593	5			5
101.00	Acid Soluble Ca, AA, inorganic 965.09 (%)	0553	0.0067	0.0006				1			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0568	0.0058	0.0005				2			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (%)	0354	0.0250	0.0100				2			0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0563	0.0201	0.0028				1			0
101.33	Acid Soluble Ca, ICP, 2017.02 (%)	0527	< 0.001					1			5
101.99	Acid Soluble Ca, Other (%)	0368	0.0061	0.0002				1			0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (%)	0553	0.0039	0.0003				1			0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0568	0.0024	0.0001				1			0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (%)	0354	< 0.01					1			5
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0527	< 0.001					0			5
121.33	Acid Soluble Mg, ICP, 2017.02 (%)	0563	< 0.01					0			5
121.99	Acid Soluble Mg, Other (%)	0368	0.0027	0.0000				2			0
121.99	Acid Soluble Mg, Other (%)	0524	0.0028	0.0000				2			0
143.99	Elemental S, Other (%)	0368	21.50	43.00				1			0
145.99	Sulfate S, HCl soluble, Other (%)	0553	0.0145	0.0010				1			0
148.99	Total S, Other (%)	0354	0.0200	0.0000				1			0
149.04	S - HNO3 soluble, ICP (%)	0524	0.0035	0.0008				1			0
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	< 0.2					0			5
151.30	Acid Soluble As, ICP (ppm)	0524	0.0034	0.0008				2			0
151.30	Acid Soluble As, ICP (ppm)	0255	0.0990	0.0000				2			0
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	0529	0.0100	0.0000				2			0

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			Value	Range	Rob Mean	Rob SD	R-bar				
151.32	Acid Soluble As, ICP, 2006.03 (ppm)	0220	0.8500	0.1000				2			0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0563	0.2001	0.0098				1			0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0527	< 0.0001					1			5
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0136	< 1					1			5
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0368	< 0.3					0			5
151.99	Acid Soluble As, Other (ppm)	0220	0.8000	0.8000				2			0
151.99	Acid Soluble As, Other (ppm)	0405	2.000	0.0000				2			0
151.99	Acid Soluble As, Other (ppm)	0572	< 0.3					2			5
165.00	Acid Soluble B, Spectrophotometric (%)	0553	< 0.001					0			5
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0354	< 0.01					0			5
165.99	Acid Soluble B, Other (%)	0524	0.0001	0.0000				2			0
165.99	Acid Soluble B, Other (%)	0563	0.0003	0.0000				2			0
165.99	Acid Soluble B, Other (%)	0527	< 0.01					2			5
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	< 0.1					0			5
181.30	Acid Soluble Cd, ICP (ppm)	0255	0.0000	0.0000				0			4
181.30	Acid Soluble Cd, ICP (ppm)	0524	0.0004	0.0007				0			4
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	0529	< 0.01					0			5
181.32	Acid Soluble Cd, ICP, 2006.03 (ppm)	0220	< 0.1					0			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0563	0.0460	0.0031				1			0
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0527	< 0.0001					1			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0136	< 1					1			5
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0368	< 0.1					0			5
181.99	Acid Soluble Cd, Other (ppm)	0553	1.590	0.0200				1			0
181.99	Acid Soluble Cd, Other (ppm)	0405	< 0.01					1			5
181.99	Acid Soluble Cd, Other (ppm)	0220	< 0.1					1			5
181.99	Acid Soluble Cd, Other (ppm)	0572	< 0.2					1			5
190.00	Water Soluble Cl, Titrimetric (%)	0550	44.85	0.0000	47.28	1.015	0.2865	16	-2.40	Low	0
190.00	Water Soluble Cl, Titrimetric (%)	0572	45.16	1.060	47.28	1.015	0.2865	16	-2.09	Low	0
190.00	Water Soluble Cl, Titrimetric (%)	0029	46.00	0.3690	47.28	1.015	0.2865	16	-1.26	Low	0
190.00	Water Soluble Cl, Titrimetric (%)	0498	46.30	0.4000	47.28	1.015	0.2865	16	-0.97	OK	0
190.00	Water Soluble Cl, Titrimetric (%)	0476	47.20	0.0563	47.28	1.015	0.2865	16	-0.08	OK	0
190.00	Water Soluble Cl, Titrimetric (%)	0546	47.31	0.0700	47.28	1.015	0.2865	16	0.02	OK	0
190.00	Water Soluble Cl, Titrimetric (%)	0553	47.40	0.6000	47.28	1.015	0.2865	16	0.12	OK	0
190.00	Water Soluble Cl, Titrimetric (%)	0564	47.43	0.0400	47.28	1.015	0.2865	16	0.15	OK	0
190.00	Water Soluble Cl, Titrimetric (%)	0220	47.47	0.1300	47.28	1.015	0.2865	16	0.18	OK	0
190.00	Water Soluble Cl, Titrimetric (%)	0538	47.52	0.0200	47.28	1.015	0.2865	16	0.24	OK	0
190.00	Water Soluble Cl, Titrimetric (%)	0444	47.59	0.3800	47.28	1.015	0.2865	16	0.30	OK	0
190.00	Water Soluble Cl, Titrimetric (%)	0405	47.68	0.0200	47.28	1.015	0.2865	16	0.39	OK	0
190.00	Water Soluble Cl, Titrimetric (%)	0537	47.74	0.5179	47.28	1.015	0.2865	16	0.45	OK	0
190.00	Water Soluble Cl, Titrimetric (%)	0117	48.23	0.5400	47.28	1.015	0.2865	16	0.94	OK	0
190.00	Water Soluble Cl, Titrimetric (%)	0561	48.55	0.3000	47.28	1.015	0.2865	16	1.25	High	0
190.00	Water Soluble Cl, Titrimetric (%)	0533	48.57	0.0800	47.28	1.015	0.2865	16	1.27	High	0
190.00	Water Soluble Cl, Titrimetric (%)	0563	47.64	1.620	47.28	1.015	0.2865	16	0.35	OK	1
190.99	Water Soluble Cl, Other (%)	0572	45.67	1.790	47.04	1.377	0.7700	6	-0.89	Low	0
190.99	Water Soluble Cl, Other (%)	0506	46.40	0.6000	47.04	1.377	0.7700	6	-0.42	OK	0
190.99	Water Soluble Cl, Other (%)	0423	46.57	0.1900	47.04	1.377	0.7700	6	-0.31	OK	0
190.99	Water Soluble Cl, Other (%)	0029	46.78	0.3700	47.04	1.377	0.7700	6	-0.17	OK	0



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190.99	Water Soluble Cl, Other (%)	0532	47.75	0.0700	47.04	1.377	0.7700	6	0.45	OK	0
190.99	Water Soluble Cl, Other (%)	0136	53.00	1.600	47.04	1.377	0.7700	6	3.85	High	0
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	< 0.5					0			5
191.32	Acid Soluble Cr, ICP, 2006.03 (ppm)	0529	0.1550	0.0100				1			0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0527	< 0.0001					0			5
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0563	< 0.1					0			5
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0136	< 1.25					0			5
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0368	0.1860	0.0620				1			0
191.99	Acid Soluble Cr, Other (ppm)	0572	0.0850	0.0100				2			0
191.99	Acid Soluble Cr, Other (ppm)	0220	0.2500	0.3000				2			0
191.99	Acid Soluble Cr, Other (ppm)	0405	< 1					2			5
202.30	Acid Soluble Co, ICP (ppm)	0524	0.0699	0.0079				1			0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0563	0.0376	0.0084				2			0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0260	1.897	1.913				2			0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0527	< 0.0001					2			5
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0136	< 1.25					2			5
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0368	0.7530	0.4120				1			0
202.99	Acid Soluble Co, Other (ppm)	0255	0.0190	0.0180				2			0
202.99	Acid Soluble Co, Other (ppm)	0553	12.00	0.6000				2			0
202.99	Acid Soluble Co, Other (ppm)	0405	< 0.1					2			5
202.99	Acid Soluble Co, Other (ppm)	0572	< 0.79					2			5
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0553	< 0.005					0			5
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0255	0.0000	0.0000				0			4
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0354	< 0.01					0			5
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0527	< 0.0001					0			5
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0563	< 0.0001					0			5
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0136	< 0.0025					0			5
221.99	Acid Soluble Cu, Other (%)	0368	0.0002	0.0001				1			0
221.99	Acid Soluble Cu, Other (%)	0405	< 0.0001					1			5
221.99	Acid Soluble Cu, Other (%)	0572	< 0.0001					1			5
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0553	< 0.005					0			5
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0354	< 0.01					0			5
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0527	< 0.0001					0			5
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0563	< 0.0001					0			5
241.99	Acid Soluble Fe, Other (%)	0524	0.0005	0.0002				1			0
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	< 0.5					0			5
251.30	Acid Soluble Pb, ICP (ppm)	0524	0.0492	0.0339				1			0
251.30	Acid Soluble Pb, ICP (ppm)	0255	0.0040	0.0080				1			4
251.32	Acid Soluble Pb, ICP, 2006.03 (ppm)	0529	0.1000	0.0200				1			0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0260	3.649	3.197				1			0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0527	< 0.0001					1			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0563	< 0.02					1			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0136	< 3					1			5
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0368	< 0.6					0			5
251.99	Acid Soluble Pb, Other (ppm)	0572	0.1350	0.0300	4.295	6.934	0.3100	3	-0.60		0
251.99	Acid Soluble Pb, Other (ppm)	0220	0.4500	0.1000	4.295	6.934	0.3100	3	-0.55		0
251.99	Acid Soluble Pb, Other (ppm)	0553	12.30	0.8000	4.295	6.934	0.3100	3	1.15		0

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251.99	Acid Soluble Pb, Other (ppm)	0405	< 0.2		4.295	6.934	0.3100	3			5
261.00	Acid Soluble Mn, AA, Mn2+ only (%)	0553	< 0.005					0			5
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0354	< 0.01					0			5
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0527	< 0.0001					0			5
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0563	< 0.0001					0			5
281.00	Acid Soluble Hg, AA (ppm)	0498	< 0.5					0			5
281.30	Acid Soluble Hg, ICP (ppm)	0527	< 0.001					0			5
281.30	Acid Soluble Hg, ICP (ppm)	0529	< 0.005					0			5
281.30	Acid Soluble Hg, ICP (ppm)	0563	< 0.02					0			5
281.99	Acid Soluble Hg, Other (ppm)	0524	0.0006	0.0005				1			0
281.99	Acid Soluble Hg, Other (ppm)	0368	< 0.005					1			5
281.99	Acid Soluble Hg, Other (ppm)	0220	< 0.01					1			5
281.99	Acid Soluble Hg, Other (ppm)	0405	< 0.01					1			5
289.30	Acid Soluble Mo, ICP (ppm)	0524	0.0127	0.0236				1			0
289.30	Acid Soluble Mo, ICP (ppm)	0255	0.0000	0.0000				1			4
289.32	Acid Soluble Mo, ICP, 2006.03 (ppm)	0220	0.3500	0.1000				1			0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0563	0.0179	0.0000				2			0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0260	6.630	0.3424				2			0
289.33	Acid Soluble Mo, ICP, 2017.02 (ppm)	0136	< 1.25					2			5
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (ppm)	0368	< 0.1					0			5
289.99	Acid Soluble Mo, Other (ppm)	0405	0.2400	0.1400				1			0
291.30	Acid Soluble Ni, ICP (ppm)	0524	0.0349	0.0292				1			0
291.32	Acid Soluble Ni, ICP, 2006.03 (ppm)	0529	0.2650	0.0300				1			0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0260	2.341	0.5233				1			0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0527	< 0.0001					1			5
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0563	< 0.1					1			5
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0136	< 1.25					1			5
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0368	< 0.3					0			5
291.99	Acid Soluble Ni, Other (ppm)	0572	0.0550	0.0300	3.241	4.968	0.6617	3	-0.64		0
291.99	Acid Soluble Ni, Other (ppm)	0255	0.7015	0.9650	3.241	4.968	0.6617	3	-0.51		0
291.99	Acid Soluble Ni, Other (ppm)	0553	8.965	0.9900	3.241	4.968	0.6617	3	1.15		0
291.99	Acid Soluble Ni, Other (ppm)	0405	< 1		3.241	4.968	0.6617	3			5
301.00	Acid Soluble Se, AA, test portion 2006.03 modified w/dual acid (ppm)	0498	< 0.5					0			5
301.30	Acid Soluble Se, ICP (ppm)	0524	0.0052	0.0014				1			0
301.32	Acid Soluble Se, ICP, 2006.03 (ppm)	0220	0.3000	0.0000				1			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0563	0.9095	0.0795				1			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0527	< 0.001					1			5
301.34	Acid Soluble Se, ICP, EPA 3050B/6010C (ppm)	0368	< 0.9					0			5
301.99	Acid Soluble Se, Other (ppm)	0220	0.3000	0.0000	0.8112	0.4477	0.0490	3	-1.14		0
301.99	Acid Soluble Se, Other (ppm)	0405	1.000	0.0000	0.8112	0.4477	0.0490	3	0.42		0
301.99	Acid Soluble Se, Other (ppm)	0255	1.134	0.1470	0.8112	0.4477	0.0490	3	0.72		0
301.99	Acid Soluble Se, Other (ppm)	0572	< 0.8		0.8112	0.4477	0.0490	3			5
311.00	Sodium, AA (%)	0498	0.0140	0.0020	0.3088	0.1672	0.0072	5	-1.76		0
311.00	Sodium, AA (%)	0405	0.3570	0.0020	0.3088	0.1672	0.0072	5	0.29		0
311.00	Sodium, AA (%)	0506	0.3585	0.0090	0.3088	0.1672	0.0072	5	0.30		0
311.00	Sodium, AA (%)	0553	0.3885	0.0010	0.3088	0.1672	0.0072	5	0.48		0
311.00	Sodium, AA (%)	0550	0.4260	0.0220	0.3088	0.1672	0.0072	5	0.70		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
311.30	Sodium, Flame Photometric (%)	0510	0.7630	0.0084				2			0
311.30	Sodium, Flame Photometric (%)	0532	1.405	0.0500				2			0
311.32	Sodium, ICP, 2006.03 test portion (%)	0444	0.3900	0.0200				1			0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0527	0.3194	0.0055	0.3658	0.0541	0.0114	5	-0.86		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0561	0.3200	0.0200	0.3658	0.0541	0.0114	5	-0.85		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0260	0.3409	0.0192	0.3658	0.0541	0.0114	5	-0.46		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0563	0.4236	0.0025	0.3658	0.0541	0.0114	5	1.07		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0136	0.4250	0.0100	0.3658	0.0541	0.0114	5	1.09		0
311.99	Sodium, Other (%)	0255	0.2620	0.1040	0.3495	0.0767	0.0427	4	-1.14		0
311.99	Sodium, Other (%)	0572	0.3250	0.0100	0.3495	0.0767	0.0427	4	-0.32		0
311.99	Sodium, Other (%)	0368	0.3658	0.0066	0.3495	0.0767	0.0427	4	0.21		0
311.99	Sodium, Other (%)	0354	0.4450	0.0500	0.3495	0.0767	0.0427	4	1.25		0
311.99	Sodium, Other (%)	0450	< 0.5		0.3495	0.0767	0.0427	4			5
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0553	< 0.002					0			5
321.02	Acid Soluble Zn, AA, 965.09, test portion 2006.03A-C (%)	0498	< 10					0			5
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0255	0.0000	0.0000				0			4
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0354	< 0.01					0			5
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0527	< 0.0001					0			5
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0563	< 0.0001					0			5
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0136	< 0.0025					0			5
321.99	Acid Soluble Zn, Other (%)	0572	0.0006	0.0001				2			0
321.99	Acid Soluble Zn, Other (%)	0368	4.228	1.610				2			0
321.99	Acid Soluble Zn, Other (%)	0405	< 0.0001					2			5
321.99	Acid Soluble Zn, Other (%)	0027	< 0.002					2			5

Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = rejected for duplicates too far apart, 2 = rejected as extreme outlier, 3 = removed from stats, 4 = rejected due to 0s submitted and 5 = LOD. A 9 flag indicates a data problem - scores not calculated. Robust statistics not used if < 6 labs used in calculations, in this case the Z Scores are grey and included for information only. IA Status describes where your result is relative to the Assigned Value ± IA. Red indicates Higher or Lower, Green indicates within the IA range. Method codes in light green indicate a guaranteed analyte. Individual lab values may be below detection limits but are reported solely for the purpose of this Proficiency Testing program.