

Analyte PT For All Labs  
 Sample # 230111  
 Organic 6-3-3.5

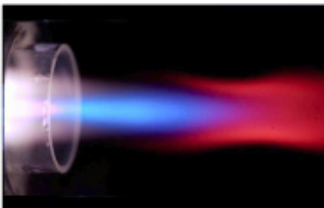
**Magruder Fertilizer Proficiency Testing Program**  
 Regular PT Scheme  
 Statistical Summary

# Analytes: 35  
 # Labs Reporting: 64  
 Issue Date : 03/03/2023

Analyte Code	Analyte Sample # 230111	# 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	Analyte IA Ratio	Average Range (R-bar)	Horwitz %RSD
001	Ammoniacal N (%)	2	2	0.4493	0.0484								
003	Water Insoluble N (%)	4	4	5.108	0.2131	5.108		0.2131	0.1332	4.17%		0.0550	3.13%
005	Urea N (%)	1		0.3050									
010	Total N (6%)	59	57	7.069	0.2742	7.046	0.5405	0.1609	0.0266	2.28%	0.69	0.0732	2.98%
020	Total P2O5 (%)	36	35	5.839	0.8751	5.981		0.3916	0.0827	6.55%		0.1714	3.06%
041	Direct Available P2O5 (3%)	30	30	5.401	0.6294	5.466	0.6700	0.5255	0.1199	9.61%	1.83	0.0940	3.10%
048	Water Soluble P2O5 (%)	2	2	0.5740	0.2178								
050	Soluble K2O (3.5%)	60	59	3.984	0.4269	3.978	0.4100	0.3405	0.0554	8.56%	1.93	0.0944	3.25%
060	Water (Free) (%)	1		4.365									
101	Acid Soluble Ca (7.8%)	50	49	7.866	0.9802	7.913	0.5956	0.3064	0.0547	3.87%	1.20	0.1154	2.93%
121	Acid Soluble Mg (0.7%)	54	52	0.6829	0.1229	0.6807	0.2340	0.0493	0.0085	7.24%	0.49	0.0170	4.24%
131	Water Soluble Mg (%)	3	3	0.2650	0.0165	0.2650		0.0165	0.0119	6.21%		0.0113	4.88%
143	Elemental S (%)	4	4	2.244	0.2286	2.244		0.2286	0.1429	10.19%		0.0774	3.54%
145	Sulfate S, HCl soluble (%)	4	4	1.921	0.3191	1.921		0.3191	0.1995	16.61%		0.0625	3.63%
148	Total S (2.5%)	41	40	2.313	0.2608	2.320	0.3160	0.2006	0.0396	8.65%	1.48	0.0516	3.52%
149	S - HNO3 soluble (%)	4	4	2.307	0.0506	2.307		0.0506	0.0316	2.19%		0.0424	3.53%
151	Acid Soluble As (ppm)	18	13	6.044	9.693	3.777		0.9864	0.3420	26.12%		0.2188	13.10%
165	Acid Soluble B (%)	6	2	0.0234	0.0402	0.0020	0.0033	0.0009	0.0008	47.14%	0.65	0.0001	10.23%
171	Water Soluble B (%)	1		0.0110									
181	Acid Soluble Cd (ppm)	17	12	1.607	1.841	1.015		0.3481	0.1256	34.29%		0.0406	15.96%
191	Acid Soluble Cr (ppm)	16	16	41.62	12.90	41.37		14.08	4.399	34.03%		2.756	9.14%
202	Acid Soluble Co (ppm)	19	18	15.57	11.54	13.18	4.9546	5.449	1.605	41.34%	2.56	0.7009	10.85%
221	Acid Soluble Cu (%)	23	21	0.0037	0.0018	0.0036	0.0054	0.0004	0.0001	10.96%	0.17	0.0001	9.31%
241	Acid Soluble Fe (0.2%)	51	49	0.2940	0.0544	0.2991	0.0349	0.0421	0.0075	14.06%	2.81	0.0083	4.80%
251	Acid Soluble Pb (ppm)	17	11	2.912	3.251	2.289		0.9315	0.3511	40.70%		0.2682	14.12%
261	Acid Soluble Mn (%)	11	10	0.0393	0.0099	0.0422	0.0092	0.0023	0.0009	5.49%	0.59	0.0012	6.44%
281	Acid Soluble Hg (ppm)	9	6	0.3140	0.6501	0.0542		0.0138	0.0070	25.44%		0.0063	22.00%
289	Acid Soluble Mo (ppm)	17	14	3.234	1.506	3.260	1.9780	1.261	0.4212	38.68%	1.49	0.2869	13.39%
291	Acid Soluble Ni (ppm)	18	17	22.73	12.63	20.08		4.318	1.309	21.50%		1.152	10.18%

Analyte Code	Analyte Sample # 230111	# 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	Analyte IA Ratio	Average Range (R-bar)	Horwitz %RSD
301	Acid Soluble Se (ppm)	12	7	7.809	13.23	1.977		0.6544	0.3092	33.09%		0.4325	14.44%
311	Sodium (%)	6	6	0.6810	0.0391	0.6810	0.0731	0.0443	0.0226	6.51%	1.41	0.0095	4.24%
321	Acid Soluble Zn (%)	24	23	7.246	35.40	0.0173	0.0067	0.0024	0.0006	13.70%	0.82	0.0010	7.36%
325	Water Soluble Zn (%)	1		0.0015									
431	Soluble Si in nonliquids (%)	1		0.0066									
441	Humic Acids (%)	10	8	4.052	2.750	5.062		2.235	0.9879	44.16%		0.1708	3.13%

The Analyte IA Ratio = 2.33 \* Robust SD / IA at the Analyte 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.



Analyte PT For All Labs

### Magruder Fertilizer Proficiency Testing Program

# Analytes: 35

Sample # 230111

Regular PT Scheme

# Labs Reporting: 64

Organic 6-3-3.5

Lab Values

Issue Date : 03/03/2023

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
001	Ammoniacal N (%)	0423	0.4150	0.0300				2		001.99	0
001	Ammoniacal N (%)	0524	0.4835	0.0270				2		001.99	0
003	Water Insoluble N (%)	0220	4.795	0.0700	5.108	0.2131	0.0550	4	-1.47	003.10	0
003	Water Insoluble N (%)	0029	5.150	0.0400	5.108	0.2131	0.0550	4	0.20	003.10	0
003	Water Insoluble N (%)	0027	5.230	0.0600	5.108	0.2131	0.0550	4	0.57	003.10	0
003	Water Insoluble N (%)	0451	5.255	0.0500	5.108	0.2131	0.0550	4	0.69	003.10	0
005	Urea N (%)	0524	0.3050	0.1500				1		005.99	0
010	Total N (6%)	0452	6.245†	0.1300	7.046	0.1609	0.0732	57	-4.98	010.60	0
010	Total N (6%)	0534	6.300†	0.0200	7.046	0.1609	0.0732	57	-4.64	010.12	0
010	Total N (6%)	0234	6.805	0.1300	7.046	0.1609	0.0732	57	-1.50	010.60	0
010	Total N (6%)	0619	6.820	0.0600	7.046	0.1609	0.0732	57	-1.41	010.60	0
010	Total N (6%)	0619	6.820	0.0600	7.046	0.1609	0.0732	57	-1.41	010.99	0
010	Total N (6%)	0588	6.825	0.0500	7.046	0.1609	0.0732	57	-1.38	010.60	0
010	Total N (6%)	0527	6.827	0.0670	7.046	0.1609	0.0732	57	-1.37	010.60	0
010	Total N (6%)	0510	6.837	0.0640	7.046	0.1609	0.0732	57	-1.30	010.11	0
010	Total N (6%)	0040	6.900	0.0000	7.046	0.1609	0.0732	57	-0.91	010.60	0
010	Total N (6%)	0230	6.900	0.0000	7.046	0.1609	0.0732	57	-0.91	010.60	0
010	Total N (6%)	0423	6.910	0.0600	7.046	0.1609	0.0732	57	-0.85	010.60	0
010	Total N (6%)	0231	6.920	0.0400	7.046	0.1609	0.0732	57	-0.79	010.60	0
010	Total N (6%)	0481	6.925	0.2100	7.046	0.1609	0.0732	57	-0.75	010.12	0
010	Total N (6%)	0114	6.930	0.1800	7.046	0.1609	0.0732	57	-0.72	010.60	0
010	Total N (6%)	0568	6.950	0.0000	7.046	0.1609	0.0732	57	-0.60	010.12	0
010	Total N (6%)	0451	6.969	0.1840	7.046	0.1609	0.0732	57	-0.48	010.60	0
010	Total N (6%)	0580	6.970	0.0400	7.046	0.1609	0.0732	57	-0.47	010.12	0
010	Total N (6%)	0481	6.975	0.0500	7.046	0.1609	0.0732	57	-0.44	010.60	0
010	Total N (6%)	0055	6.985	0.1500	7.046	0.1609	0.0732	57	-0.38	010.60	0
010	Total N (6%)	0136	6.995	0.0300	7.046	0.1609	0.0732	57	-0.32	010.60	0
010	Total N (6%)	0523	6.995	0.0000	7.046	0.1609	0.0732	57	-0.32	010.60	0
010	Total N (6%)	0501	7.000	0.0000	7.046	0.1609	0.0732	57	-0.29	010.60	0
010	Total N (6%)	0291	7.005	0.0100	7.046	0.1609	0.0732	57	-0.26	010.60	0
010	Total N (6%)	0422	7.015	0.0300	7.046	0.1609	0.0732	57	-0.19	010.60	0
010	Total N (6%)	0157	7.020	0.0200	7.046	0.1609	0.0732	57	-0.16	010.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
010	Total N (6%)	0389	7.025	0.0100	7.046	0.1609	0.0732	57	-0.13	010.60	0
010	Total N (6%)	0049	7.035	0.0300	7.046	0.1609	0.0732	57	-0.07	010.60	0
010	Total N (6%)	0485	7.035	0.1100	7.046	0.1609	0.0732	57	-0.07	010.60	0
010	Total N (6%)	0547	7.040	0.0400	7.046	0.1609	0.0732	57	-0.04	010.60	0
010	Total N (6%)	0073	7.055	0.0500	7.046	0.1609	0.0732	57	0.05	010.60	0
010	Total N (6%)	0029	7.058	0.0180	7.046	0.1609	0.0732	57	0.07	010.60	0
010	Total N (6%)	0524	7.068	0.0183	7.046	0.1609	0.0732	57	0.13	010.99	0
010	Total N (6%)	0543	7.068	0.0360	7.046	0.1609	0.0732	57	0.13	010.60	0
010	Total N (6%)	0043	7.080	0.0400	7.046	0.1609	0.0732	57	0.21	010.60	0
010	Total N (6%)	0324	7.085	0.0900	7.046	0.1609	0.0732	57	0.24	010.60	0
010	Total N (6%)	0354	7.095	0.0100	7.046	0.1609	0.0732	57	0.30	010.60	0
010	Total N (6%)	0450	7.100	0.0000	7.046	0.1609	0.0732	57	0.33	010.60	0
010	Total N (6%)	0177	7.115	0.1010	7.046	0.1609	0.0732	57	0.42	010.60	0
010	Total N (6%)	0377	7.125	0.0900	7.046	0.1609	0.0732	57	0.49	010.60	0
010	Total N (6%)	0356	7.129	0.0200	7.046	0.1609	0.0732	57	0.51	010.60	0
010	Total N (6%)	0025	7.140	0.1000	7.046	0.1609	0.0732	57	0.58	010.60	0
010	Total N (6%)	0086	7.140	0.1221	7.046	0.1609	0.0732	57	0.58	010.60	0
010	Total N (6%)	0102	7.150	0.1000	7.046	0.1609	0.0732	57	0.64	010.60	0
010	Total N (6%)	0095	7.155	0.1300	7.046	0.1609	0.0732	57	0.68	010.60	0
010	Total N (6%)	0405	7.155	0.0500	7.046	0.1609	0.0732	57	0.68	010.60	0
010	Total N (6%)	0220	7.165	0.3900	7.046	0.1609	0.0732	57	0.74	010.60	0
010	Total N (6%)	0587	7.170	0.0800	7.046	0.1609	0.0732	57	0.77	010.60	0
010	Total N (6%)	0472	7.175	0.0500	7.046	0.1609	0.0732	57	0.80	010.60	0
010	Total N (6%)	0368	7.187	0.0090	7.046	0.1609	0.0732	57	0.87	010.60	0
010	Total N (6%)	0260	7.215	0.0700	7.046	0.1609	0.0732	57	1.05	010.60	0
010	Total N (6%)	0027	7.245	0.0100	7.046	0.1609	0.0732	57	1.23	010.60	0
010	Total N (6%)	0255	7.492	0.3810	7.046	0.1609	0.0732	57	2.77	010.60	0
010	Total N (6%)	0563	7.550	0.1000	7.046	0.1609	0.0732	57	3.13	010.99	0
010	Total N (6%)	0042	7.650‡	0.1000	7.046	0.1609	0.0732	57	3.75	010.60	0
010	Total N (6%)	0600	7.750‡	0.2000	7.046	0.1609	0.0732	57	4.37	010.99	0
010	Total N (6%)	0562	7.810‡	0.0200	7.046	0.1609	0.0732	57	4.75	010.99	0
010	Total N (6%)	0559	7.825‡	0.0100	7.046	0.1609	0.0732	57	4.84	010.99	0
010	Total N (6%)	0035	6.950	0.5000	7.046	0.1609	0.0732	57	-0.60	010.60	1
010	Total N (6%)	0419	7.188	0.5260	7.046	0.1609	0.0732	57	0.88	010.11	1
020	Total P2O5 (%)	0423	2.550	0.0200	5.981	0.3916	0.1714	35	-8.76	020.50	0
020	Total P2O5 (%)	0552	3.170	0.3400	5.981	0.3916	0.1714	35	-7.18	020.50	0
020	Total P2O5 (%)	0481	4.720	0.0400	5.981	0.3916	0.1714	35	-3.22	020.99	0
020	Total P2O5 (%)	0450	5.020	0.8000	5.981	0.3916	0.1714	35	-2.45	020.50	0
020	Total P2O5 (%)	0291	5.155	0.0100	5.981	0.3916	0.1714	35	-2.11	020.50	0
020	Total P2O5 (%)	0563	5.555	0.3300	5.981	0.3916	0.1714	35	-1.09	020.20	0
020	Total P2O5 (%)	0255	5.678	0.5520	5.981	0.3916	0.1714	35	-0.77	020.50	0
020	Total P2O5 (%)	0543	5.746	0.0010	5.981	0.3916	0.1714	35	-0.60	020.50	0
020	Total P2O5 (%)	0405	5.760	0.0400	5.981	0.3916	0.1714	35	-0.56	020.20	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
020	Total P2O5 (%)	0619	5.810	0.0800	5.981	0.3916	0.1714	35	-0.44	020.10	0
020	Total P2O5 (%)	0619	5.810	0.0800	5.981	0.3916	0.1714	35	-0.44	020.99	0
020	Total P2O5 (%)	0433	5.810	0.1600	5.981	0.3916	0.1714	35	-0.44	020.50	0
020	Total P2O5 (%)	0619	5.810	0.0600	5.981	0.3916	0.1714	35	-0.44	020.50	0
020	Total P2O5 (%)	0035	5.850	0.3000	5.981	0.3916	0.1714	35	-0.33	020.40	0
020	Total P2O5 (%)	0422	5.865	0.0114	5.981	0.3916	0.1714	35	-0.30	020.50	0
020	Total P2O5 (%)	0524	5.921	0.0067	5.981	0.3916	0.1714	35	-0.15	020.50	0
020	Total P2O5 (%)	0472	6.010	0.0000	5.981	0.3916	0.1714	35	0.07	020.50	0
020	Total P2O5 (%)	0572	6.064	0.3340	5.981	0.3916	0.1714	35	0.21	020.99	0
020	Total P2O5 (%)	0231	6.105	0.0100	5.981	0.3916	0.1714	35	0.32	020.20	0
020	Total P2O5 (%)	0580	6.110	0.0000	5.981	0.3916	0.1714	35	0.33	020.20	0
020	Total P2O5 (%)	0419	6.130	0.0200	5.981	0.3916	0.1714	35	0.38	020.20	0
020	Total P2O5 (%)	0451	6.148	0.0020	5.981	0.3916	0.1714	35	0.43	020.50	0
020	Total P2O5 (%)	0260	6.170	0.4000	5.981	0.3916	0.1714	35	0.48	020.50	0
020	Total P2O5 (%)	0588	6.205	0.2900	5.981	0.3916	0.1714	35	0.57	020.50	0
020	Total P2O5 (%)	0049	6.215	0.0300	5.981	0.3916	0.1714	35	0.60	020.10	0
020	Total P2O5 (%)	0559	6.230	0.0200	5.981	0.3916	0.1714	35	0.64	020.99	0
020	Total P2O5 (%)	0527	6.238	0.1214	5.981	0.3916	0.1714	35	0.66	020.50	0
020	Total P2O5 (%)	0356	6.265	0.1220	5.981	0.3916	0.1714	35	0.73	020.20	0
020	Total P2O5 (%)	0510	6.270	0.0225	5.981	0.3916	0.1714	35	0.74	020.20	0
020	Total P2O5 (%)	0324	6.330	0.9000	5.981	0.3916	0.1714	35	0.89	020.20	0
020	Total P2O5 (%)	0587	6.335	0.2500	5.981	0.3916	0.1714	35	0.90	020.99	0
020	Total P2O5 (%)	0389	6.365	0.0500	5.981	0.3916	0.1714	35	0.98	020.50	0
020	Total P2O5 (%)	0234	6.420	0.0400	5.981	0.3916	0.1714	35	1.12	020.50	0
020	Total P2O5 (%)	0368	7.052	0.0561	5.981	0.3916	0.1714	35	2.74	020.50	0
020	Total P2O5 (%)	0042	7.350	0.5000	5.981	0.3916	0.1714	35	3.50	020.50	0
020	Total P2O5 (%)	0523	5.950	5.700	5.981	0.3916	0.1714	35	-0.08	020.50	1
041	Direct Available P2O5 (3%)	0553	3.205†	0.2700	5.466	0.5255	0.0940	30	-4.30	041.20	0
041	Direct Available P2O5 (3%)	0518	4.400†	0.2000	5.466	0.5255	0.0940	30	-2.03	041.99	0
041	Direct Available P2O5 (3%)	0055	4.465†	0.3300	5.466	0.5255	0.0940	30	-1.91	041.21	0
041	Direct Available P2O5 (3%)	0547	4.700†	0.0000	5.466	0.5255	0.0940	30	-1.46	041.51	0
041	Direct Available P2O5 (3%)	0041	4.970	0.0400	5.466	0.5255	0.0940	30	-0.94	041.10	0
041	Direct Available P2O5 (3%)	0102	4.975	0.0500	5.466	0.5255	0.0940	30	-0.93	041.10	0
041	Direct Available P2O5 (3%)	0055	5.000	0.0400	5.466	0.5255	0.0940	30	-0.89	041.11	0
041	Direct Available P2O5 (3%)	0452	5.095	0.0100	5.466	0.5255	0.0940	30	-0.71	041.20	0
041	Direct Available P2O5 (3%)	0136	5.280	0.0600	5.466	0.5255	0.0940	30	-0.35	041.51	0
041	Direct Available P2O5 (3%)	0025	5.300	0.1400	5.466	0.5255	0.0940	30	-0.32	041.51	0
041	Direct Available P2O5 (3%)	0354	5.350	0.0800	5.466	0.5255	0.0940	30	-0.22	041.21	0
041	Direct Available P2O5 (3%)	0405	5.390	0.0000	5.466	0.5255	0.0940	30	-0.14	041.21	0
041	Direct Available P2O5 (3%)	0040	5.450	0.3000	5.466	0.5255	0.0940	30	-0.03	041.51	0
041	Direct Available P2O5 (3%)	0405	5.450	0.0000	5.466	0.5255	0.0940	30	-0.03	041.11	0
041	Direct Available P2O5 (3%)	0419	5.450	0.0600	5.466	0.5255	0.0940	30	-0.03	041.21	0
041	Direct Available P2O5 (3%)	0073	5.525	0.0300	5.466	0.5255	0.0940	30	0.11	041.11	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
041	Direct Available P2O5 (3%)	0568	5.570	0.0000	5.466	0.5255	0.0940	30	0.20	041.21	0
041	Direct Available P2O5 (3%)	0485	5.595	0.0500	5.466	0.5255	0.0940	30	0.25	041.11	0
041	Direct Available P2O5 (3%)	0043	5.660	0.1800	5.466	0.5255	0.0940	30	0.37	041.51	0
041	Direct Available P2O5 (3%)	0029	5.664	0.1090	5.466	0.5255	0.0940	30	0.38	041.40	0
041	Direct Available P2O5 (3%)	0231	5.735	0.0100	5.466	0.5255	0.0940	30	0.51	041.21	0
041	Direct Available P2O5 (3%)	0027	5.750	0.0400	5.466	0.5255	0.0940	30	0.54	041.20	0
041	Direct Available P2O5 (3%)	0095	5.755	0.2700	5.466	0.5255	0.0940	30	0.55	041.21	0
041	Direct Available P2O5 (3%)	0377	5.845	0.1700	5.466	0.5255	0.0940	30	0.72	041.51	0
041	Direct Available P2O5 (3%)	0423	5.850	0.0400	5.466	0.5255	0.0940	30	0.73	041.51	0
041	Direct Available P2O5 (3%)	0472	5.890	0.0000	5.466	0.5255	0.0940	30	0.81	041.21	0
041	Direct Available P2O5 (3%)	0230	6.035	0.0300	5.466	0.5255	0.0940	30	1.08	041.21	0
041	Direct Available P2O5 (3%)	0600	6.200‡	0.2000	5.466	0.5255	0.0940	30	1.40	041.99	0
041	Direct Available P2O5 (3%)	0562	6.210‡	0.0200	5.466	0.5255	0.0940	30	1.42	041.99	0
041	Direct Available P2O5 (3%)	0220	6.255‡	0.0900	5.466	0.5255	0.0940	30	1.50	041.11	0
048	Water Soluble P2O5 (%)	0472	0.4200	0.0000				2		048.20	0
048	Water Soluble P2O5 (%)	0572	0.7280	0.1360				2		048.99	0
050	Soluble K2O (3.5%)	0049	2.485‡	0.2700	3.978	0.3405	0.0944	59	-4.38	050.00	0
050	Soluble K2O (3.5%)	0481	3.355‡	0.0500	3.978	0.3405	0.0944	59	-1.83	050.99	0
050	Soluble K2O (3.5%)	0553	3.380‡	0.1000	3.978	0.3405	0.0944	59	-1.76	050.99	0
050	Soluble K2O (3.5%)	0102	3.435‡	0.0300	3.978	0.3405	0.0944	59	-1.59	050.00	0
050	Soluble K2O (3.5%)	0114	3.435‡	0.0500	3.978	0.3405	0.0944	59	-1.59	050.00	0
050	Soluble K2O (3.5%)	0552	3.500‡	0.0000	3.978	0.3405	0.0944	59	-1.40	050.99	0
050	Soluble K2O (3.5%)	0501	3.545‡	0.3300	3.978	0.3405	0.0944	59	-1.27	050.99	0
050	Soluble K2O (3.5%)	0619	3.560‡	0.1800	3.978	0.3405	0.0944	59	-1.23	050.00	0
050	Soluble K2O (3.5%)	0619	3.565‡	0.1900	3.978	0.3405	0.0944	59	-1.21	050.50	0
050	Soluble K2O (3.5%)	0230	3.640	0.0400	3.978	0.3405	0.0944	59	-0.99	050.50	0
050	Soluble K2O (3.5%)	0472	3.670	0.0000	3.978	0.3405	0.0944	59	-0.90	050.32	0
050	Soluble K2O (3.5%)	0547	3.700	0.0800	3.978	0.3405	0.0944	59	-0.82	050.52	0
050	Soluble K2O (3.5%)	0220	3.705	0.0100	3.978	0.3405	0.0944	59	-0.80	050.99	0
050	Soluble K2O (3.5%)	0510	3.708	0.1841	3.978	0.3405	0.0944	59	-0.79	050.60	0
050	Soluble K2O (3.5%)	0422	3.745	0.0036	3.978	0.3405	0.0944	59	-0.68	050.50	0
050	Soluble K2O (3.5%)	0518	3.770	0.0000	3.978	0.3405	0.0944	59	-0.61	050.99	0
050	Soluble K2O (3.5%)	0580	3.785	0.0300	3.978	0.3405	0.0944	59	-0.57	050.60	0
050	Soluble K2O (3.5%)	0405	3.795	0.0100	3.978	0.3405	0.0944	59	-0.54	050.00	0
050	Soluble K2O (3.5%)	0563	3.815	0.0300	3.978	0.3405	0.0944	59	-0.48	050.99	0
050	Soluble K2O (3.5%)	0485	3.820	0.3000	3.978	0.3405	0.0944	59	-0.46	050.52	0
050	Soluble K2O (3.5%)	0600	3.875	0.1500	3.978	0.3405	0.0944	59	-0.30	050.99	0
050	Soluble K2O (3.5%)	0423	3.885	0.0900	3.978	0.3405	0.0944	59	-0.27	050.52	0
050	Soluble K2O (3.5%)	0433	3.915	0.0300	3.978	0.3405	0.0944	59	-0.18	050.99	0
050	Soluble K2O (3.5%)	0451	3.925	0.1110	3.978	0.3405	0.0944	59	-0.16	050.99	0
050	Soluble K2O (3.5%)	0562	3.925	0.0500	3.978	0.3405	0.0944	59	-0.15	050.99	0
050	Soluble K2O (3.5%)	0559	3.945	0.0100	3.978	0.3405	0.0944	59	-0.10	050.99	0
050	Soluble K2O (3.5%)	0389	3.955	0.0300	3.978	0.3405	0.0944	59	-0.07	050.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
050	Soluble K2O (3.5%)	0055	3.960	0.0200	3.978	0.3405	0.0944	59	-0.05	050.50	0
050	Soluble K2O (3.5%)	0543	3.977	0.0230	3.978	0.3405	0.0944	59	0.00	050.52	0
050	Soluble K2O (3.5%)	0572	3.989	0.2670	3.978	0.3405	0.0944	59	0.03	050.99	0
050	Soluble K2O (3.5%)	0368	3.990	0.0648	3.978	0.3405	0.0944	59	0.03	050.51	0
050	Soluble K2O (3.5%)	0377	4.020	0.1200	3.978	0.3405	0.0944	59	0.12	050.52	0
050	Soluble K2O (3.5%)	0255	4.042	0.4250	3.978	0.3405	0.0944	59	0.19	050.99	0
050	Soluble K2O (3.5%)	0231	4.055	0.0100	3.978	0.3405	0.0944	59	0.23	050.50	0
050	Soluble K2O (3.5%)	0260	4.055	0.2500	3.978	0.3405	0.0944	59	0.23	050.99	0
050	Soluble K2O (3.5%)	0419	4.060	0.0800	3.978	0.3405	0.0944	59	0.24	050.50	0
050	Soluble K2O (3.5%)	0029	4.075	0.0870	3.978	0.3405	0.0944	59	0.28	050.62	0
050	Soluble K2O (3.5%)	0177	4.117	0.0424	3.978	0.3405	0.0944	59	0.41	050.99	0
050	Soluble K2O (3.5%)	0354	4.125	0.0100	3.978	0.3405	0.0944	59	0.43	050.52	0
050	Soluble K2O (3.5%)	0035	4.150	0.5000	3.978	0.3405	0.0944	59	0.51	050.61	0
050	Soluble K2O (3.5%)	0025	4.165	0.1100	3.978	0.3405	0.0944	59	0.55	050.52	0
050	Soluble K2O (3.5%)	0136	4.170	0.0800	3.978	0.3405	0.0944	59	0.56	050.52	0
050	Soluble K2O (3.5%)	0040	4.200	0.0000	3.978	0.3405	0.0944	59	0.65	050.30	0
050	Soluble K2O (3.5%)	0073	4.210	0.0400	3.978	0.3405	0.0944	59	0.68	050.30	0
050	Soluble K2O (3.5%)	0527	4.235	0.0567	3.978	0.3405	0.0944	59	0.76	050.99	0
050	Soluble K2O (3.5%)	0524	4.244	0.0761	3.978	0.3405	0.0944	59	0.78	050.99	0
050	Soluble K2O (3.5%)	0356	4.246	0.0170	3.978	0.3405	0.0944	59	0.79	050.30	0
050	Soluble K2O (3.5%)	0450	4.280	0.3000	3.978	0.3405	0.0944	59	0.89	050.99	0
050	Soluble K2O (3.5%)	0043	4.295	0.1500	3.978	0.3405	0.0944	59	0.93	050.52	0
050	Soluble K2O (3.5%)	0291	4.305	0.0100	3.978	0.3405	0.0944	59	0.96	050.51	0
050	Soluble K2O (3.5%)	0027	4.305	0.1700	3.978	0.3405	0.0944	59	0.96	050.99	0
050	Soluble K2O (3.5%)	0587	4.315	0.0900	3.978	0.3405	0.0944	59	0.99	050.99	0
050	Soluble K2O (3.5%)	0234	4.335	0.0300	3.978	0.3405	0.0944	59	1.05	050.99	0
050	Soluble K2O (3.5%)	0452	4.345	0.0100	3.978	0.3405	0.0944	59	1.08	050.51	0
050	Soluble K2O (3.5%)	0324	4.385	0.0700	3.978	0.3405	0.0944	59	1.20	050.50	0
050	Soluble K2O (3.5%)	0095	4.620‡	0.0000	3.978	0.3405	0.0944	59	1.89	050.62	0
050	Soluble K2O (3.5%)	0042	4.850‡	0.1000	3.978	0.3405	0.0944	59	2.56	050.99	0
050	Soluble K2O (3.5%)	0568	4.990‡	0.0000	3.978	0.3405	0.0944	59	2.97	050.51	0
050	Soluble K2O (3.5%)	0523	5.400‡	0.0000	3.978	0.3405	0.0944	59	4.18	050.99	0
050	Soluble K2O (3.5%)	0619	3.675	0.6100	3.978	0.3405	0.0944	59	-0.89	050.99	1
060	Water (Free) (%)	0510	4.365	0.0818				1		060.99	0
101	Acid Soluble Ca (7.8%)	0481	6.975‡	0.0300	7.913	0.3064	0.1154	49	-3.06	101.99	0
101	Acid Soluble Ca (7.8%)	0073	7.140‡	0.0400	7.913	0.3064	0.1154	49	-2.52	101.30	0
101	Acid Soluble Ca (7.8%)	0231	7.300‡	0.1000	7.913	0.3064	0.1154	49	-2.00	101.30	0
101	Acid Soluble Ca (7.8%)	0043	7.500	0.1000	7.913	0.3064	0.1154	49	-1.35	101.33	0
101	Acid Soluble Ca (7.8%)	0450	7.530	0.0400	7.913	0.3064	0.1154	49	-1.25	101.99	0
101	Acid Soluble Ca (7.8%)	0405	7.532	0.1520	7.913	0.3064	0.1154	49	-1.24	101.32	0
101	Acid Soluble Ca (7.8%)	0055	7.595	0.4300	7.913	0.3064	0.1154	49	-1.04	101.33	0
101	Acid Soluble Ca (7.8%)	0543	7.621	0.0420	7.913	0.3064	0.1154	49	-0.95	101.33	0
101	Acid Soluble Ca (7.8%)	0255	7.638	0.0070	7.913	0.3064	0.1154	49	-0.90	101.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
101	Acid Soluble Ca (7.8%)	0260	7.638	0.2850	7.913	0.3064	0.1154	49	-0.90	101.33	0
101	Acid Soluble Ca (7.8%)	0368	7.640	0.2814	7.913	0.3064	0.1154	49	-0.89	101.99	0
101	Acid Soluble Ca (7.8%)	0040	7.640	0.0800	7.913	0.3064	0.1154	49	-0.89	101.33	0
101	Acid Soluble Ca (7.8%)	0553	7.725	0.1500	7.913	0.3064	0.1154	49	-0.61	101.00	0
101	Acid Soluble Ca (7.8%)	0377	7.745	0.0700	7.913	0.3064	0.1154	49	-0.55	101.30	0
101	Acid Soluble Ca (7.8%)	0472	7.805	0.0700	7.913	0.3064	0.1154	49	-0.35	101.33	0
101	Acid Soluble Ca (7.8%)	0568	7.810	0.0000	7.913	0.3064	0.1154	49	-0.34	101.30	0
101	Acid Soluble Ca (7.8%)	0423	7.820	0.1200	7.913	0.3064	0.1154	49	-0.30	101.32	0
101	Acid Soluble Ca (7.8%)	0102	7.820	0.1000	7.913	0.3064	0.1154	49	-0.30	101.33	0
101	Acid Soluble Ca (7.8%)	0563	7.855	0.0500	7.913	0.3064	0.1154	49	-0.19	101.33	0
101	Acid Soluble Ca (7.8%)	0136	7.860	0.0200	7.913	0.3064	0.1154	49	-0.17	101.33	0
101	Acid Soluble Ca (7.8%)	0027	7.865	0.1500	7.913	0.3064	0.1154	49	-0.16	101.99	0
101	Acid Soluble Ca (7.8%)	0572	7.866	0.2730	7.913	0.3064	0.1154	49	-0.15	101.99	0
101	Acid Soluble Ca (7.8%)	0451	7.866	0.1020	7.913	0.3064	0.1154	49	-0.15	101.30	0
101	Acid Soluble Ca (7.8%)	0527	7.871	0.0940	7.913	0.3064	0.1154	49	-0.14	101.33	0
101	Acid Soluble Ca (7.8%)	0559	7.910	0.0200	7.913	0.3064	0.1154	49	-0.01	101.99	0
101	Acid Soluble Ca (7.8%)	0177	7.919	0.1295	7.913	0.3064	0.1154	49	0.02	101.33	0
101	Acid Soluble Ca (7.8%)	0619	7.935	0.3300	7.913	0.3064	0.1154	49	0.07	101.31	0
101	Acid Soluble Ca (7.8%)	0619	7.950	0.3600	7.913	0.3064	0.1154	49	0.12	101.30	0
101	Acid Soluble Ca (7.8%)	0619	7.950	0.3600	7.913	0.3064	0.1154	49	0.12	101.99	0
101	Acid Soluble Ca (7.8%)	0552	7.980	0.3600	7.913	0.3064	0.1154	49	0.22	101.99	0
101	Acid Soluble Ca (7.8%)	0157	7.985	0.1300	7.913	0.3064	0.1154	49	0.24	101.00	0
101	Acid Soluble Ca (7.8%)	0419	8.005	0.1100	7.913	0.3064	0.1154	49	0.30	101.33	0
101	Acid Soluble Ca (7.8%)	0587	8.025	0.0300	7.913	0.3064	0.1154	49	0.37	101.99	0
101	Acid Soluble Ca (7.8%)	0117	8.030	0.0434	7.913	0.3064	0.1154	49	0.38	101.33	0
101	Acid Soluble Ca (7.8%)	0485	8.040	0.2000	7.913	0.3064	0.1154	49	0.42	101.00	0
101	Acid Soluble Ca (7.8%)	0035	8.065	0.0500	7.913	0.3064	0.1154	49	0.50	101.30	0
101	Acid Soluble Ca (7.8%)	0510	8.096	0.0382	7.913	0.3064	0.1154	49	0.60	101.70	0
101	Acid Soluble Ca (7.8%)	0354	8.105	0.0100	7.913	0.3064	0.1154	49	0.63	101.30	0
101	Acid Soluble Ca (7.8%)	0095	8.106	0.0693	7.913	0.3064	0.1154	49	0.63	101.32	0
101	Acid Soluble Ca (7.8%)	0324	8.115	0.0700	7.913	0.3064	0.1154	49	0.66	101.30	0
101	Acid Soluble Ca (7.8%)	0234	8.145	0.1900	7.913	0.3064	0.1154	49	0.76	101.30	0
101	Acid Soluble Ca (7.8%)	0029	8.250	0.0790	7.913	0.3064	0.1154	49	1.10	101.00	0
101	Acid Soluble Ca (7.8%)	0389	8.310	0.0600	7.913	0.3064	0.1154	49	1.30	101.99	0
101	Acid Soluble Ca (7.8%)	0501	8.345	0.0100	7.913	0.3064	0.1154	49	1.41	101.99	0
101	Acid Soluble Ca (7.8%)	0433	8.720‡	0.1000	7.913	0.3064	0.1154	49	2.63	101.30	0
101	Acid Soluble Ca (7.8%)	0291	8.755‡	0.0100	7.913	0.3064	0.1154	49	2.75	101.30	0
101	Acid Soluble Ca (7.8%)	0452	8.850‡	0.0400	7.913	0.3064	0.1154	49	3.06	101.30	0
101	Acid Soluble Ca (7.8%)	0580	8.935‡	0.0500	7.913	0.3064	0.1154	49	3.34	101.00	0
101	Acid Soluble Ca (7.8%)	0523	10.84‡	0.0200	7.913	0.3064	0.1154	49	9.55	101.99	0
101	Acid Soluble Ca (7.8%)	0534	2.285†	0.2700	7.913	0.3064	0.1154	49	-18.37	101.00	2
121	Acid Soluble Mg (0.7%)	0580	0.2450†	0.0100	0.6807	0.0493	0.0170	52	-8.84	121.00	0
121	Acid Soluble Mg (0.7%)	0568	0.4250†	0.0000	0.6807	0.0493	0.0170	52	-5.19	121.30	0



Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
121	Acid Soluble Mg (0.7%)	0534	0.5400	0.0600	0.6807	0.0493	0.0170	52	-2.86	121.00	0
121	Acid Soluble Mg (0.7%)	0073	0.5790	0.0100	0.6807	0.0493	0.0170	52	-2.06	121.00	0
121	Acid Soluble Mg (0.7%)	0481	0.6100	0.0000	0.6807	0.0493	0.0170	52	-1.43	121.99	0
121	Acid Soluble Mg (0.7%)	0524	0.6151	0.0082	0.6807	0.0493	0.0170	52	-1.33	121.99	0
121	Acid Soluble Mg (0.7%)	0572	0.6195	0.0050	0.6807	0.0493	0.0170	52	-1.24	121.99	0
121	Acid Soluble Mg (0.7%)	0423	0.6320	0.0120	0.6807	0.0493	0.0170	52	-0.99	121.32	0
121	Acid Soluble Mg (0.7%)	0055	0.6350	0.0100	0.6807	0.0493	0.0170	52	-0.93	121.33	0
121	Acid Soluble Mg (0.7%)	0485	0.6360	0.0520	0.6807	0.0493	0.0170	52	-0.91	121.00	0
121	Acid Soluble Mg (0.7%)	0377	0.6400	0.0000	0.6807	0.0493	0.0170	52	-0.83	121.30	0
121	Acid Soluble Mg (0.7%)	0220	0.6400	0.0200	0.6807	0.0493	0.0170	52	-0.83	121.32	0
121	Acid Soluble Mg (0.7%)	0177	0.6414	0.0035	0.6807	0.0493	0.0170	52	-0.80	121.33	0
121	Acid Soluble Mg (0.7%)	0368	0.6451	0.0270	0.6807	0.0493	0.0170	52	-0.72	121.99	0
121	Acid Soluble Mg (0.7%)	0095	0.6520	0.0500	0.6807	0.0493	0.0170	52	-0.58	121.32	0
121	Acid Soluble Mg (0.7%)	0040	0.6650	0.0300	0.6807	0.0493	0.0170	52	-0.32	121.00	0
121	Acid Soluble Mg (0.7%)	0029	0.6663	0.0126	0.6807	0.0493	0.0170	52	-0.29	121.00	0
121	Acid Soluble Mg (0.7%)	0543	0.6680	0.0040	0.6807	0.0493	0.0170	52	-0.26	121.33	0
121	Acid Soluble Mg (0.7%)	0136	0.6700	0.0200	0.6807	0.0493	0.0170	52	-0.22	121.33	0
121	Acid Soluble Mg (0.7%)	0260	0.6730	0.0480	0.6807	0.0493	0.0170	52	-0.16	121.33	0
121	Acid Soluble Mg (0.7%)	0405	0.6735	0.0030	0.6807	0.0493	0.0170	52	-0.15	121.32	0
121	Acid Soluble Mg (0.7%)	0389	0.6740	0.0000	0.6807	0.0493	0.0170	52	-0.14	121.99	0
121	Acid Soluble Mg (0.7%)	0035	0.6745	0.0150	0.6807	0.0493	0.0170	52	-0.13	121.30	0
121	Acid Soluble Mg (0.7%)	0451	0.6770	0.0109	0.6807	0.0493	0.0170	52	-0.08	121.30	0
121	Acid Soluble Mg (0.7%)	0231	0.6800	0.0000	0.6807	0.0493	0.0170	52	-0.01	121.30	0
121	Acid Soluble Mg (0.7%)	0619	0.6805	0.0170	0.6807	0.0493	0.0170	52	0.00	121.30	0
121	Acid Soluble Mg (0.7%)	0619	0.6805	0.0170	0.6807	0.0493	0.0170	52	0.00	121.99	0
121	Acid Soluble Mg (0.7%)	0324	0.6830	0.0400	0.6807	0.0493	0.0170	52	0.05	121.30	0
121	Acid Soluble Mg (0.7%)	0587	0.6850	0.0100	0.6807	0.0493	0.0170	52	0.09	121.99	0
121	Acid Soluble Mg (0.7%)	0619	0.6895	0.0010	0.6807	0.0493	0.0170	52	0.18	121.31	0
121	Acid Soluble Mg (0.7%)	0043	0.6900	0.0000	0.6807	0.0493	0.0170	52	0.19	121.33	0
121	Acid Soluble Mg (0.7%)	0255	0.6930	0.0540	0.6807	0.0493	0.0170	52	0.25	121.30	0
121	Acid Soluble Mg (0.7%)	0354	0.6950	0.0100	0.6807	0.0493	0.0170	52	0.29	121.30	0
121	Acid Soluble Mg (0.7%)	0234	0.7000	0.0000	0.6807	0.0493	0.0170	52	0.39	121.30	0
121	Acid Soluble Mg (0.7%)	0501	0.7000	0.0400	0.6807	0.0493	0.0170	52	0.39	121.99	0
121	Acid Soluble Mg (0.7%)	0419	0.7050	0.0100	0.6807	0.0493	0.0170	52	0.49	121.33	0
121	Acid Soluble Mg (0.7%)	0472	0.7050	0.0100	0.6807	0.0493	0.0170	52	0.49	121.33	0
121	Acid Soluble Mg (0.7%)	0117	0.7052	0.0094	0.6807	0.0493	0.0170	52	0.50	121.33	0
121	Acid Soluble Mg (0.7%)	0102	0.7100	0.0400	0.6807	0.0493	0.0170	52	0.59	121.33	0
121	Acid Soluble Mg (0.7%)	0027	0.7100	0.0000	0.6807	0.0493	0.0170	52	0.59	121.99	0
121	Acid Soluble Mg (0.7%)	0527	0.7122	0.0117	0.6807	0.0493	0.0170	52	0.64	121.33	0
121	Acid Soluble Mg (0.7%)	0049	0.7126	0.0153	0.6807	0.0493	0.0170	52	0.65	121.30	0
121	Acid Soluble Mg (0.7%)	0553	0.7175	0.0150	0.6807	0.0493	0.0170	52	0.75	121.00	0
121	Acid Soluble Mg (0.7%)	0559	0.7250	0.0100	0.6807	0.0493	0.0170	52	0.90	121.99	0
121	Acid Soluble Mg (0.7%)	0600	0.7250	0.0500	0.6807	0.0493	0.0170	52	0.90	121.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
121	Acid Soluble Mg (0.7%)	0452	0.7400	0.0000	0.6807	0.0493	0.0170	52	1.20	121.30	0
121	Acid Soluble Mg (0.7%)	0291	0.7450	0.0100	0.6807	0.0493	0.0170	52	1.31	121.30	0
121	Acid Soluble Mg (0.7%)	0433	0.8250	0.0260	0.6807	0.0493	0.0170	52	2.93	121.30	0
121	Acid Soluble Mg (0.7%)	0510	0.8538	0.0250	0.6807	0.0493	0.0170	52	3.51	121.70	0
121	Acid Soluble Mg (0.7%)	0563	0.8550	0.0100	0.6807	0.0493	0.0170	52	3.54	121.33	0
121	Acid Soluble Mg (0.7%)	0523	1.065‡	0.0100	0.6807	0.0493	0.0170	52	7.80	121.99	0
121	Acid Soluble Mg (0.7%)	0042	1.105‡	0.0300	0.6807	0.0493	0.0170	52	8.61	121.99	0
121	Acid Soluble Mg (0.7%)	0450	0.4450†	0.0900	0.6807	0.0493	0.0170	52	-4.78	121.99	1
121	Acid Soluble Mg (0.7%)	0552	0.7450	0.0900	0.6807	0.0493	0.0170	52	1.31	121.99	1
131	Water Soluble Mg (%)	0619	0.2555	0.0070	0.2650	0.0165	0.0113	3	-0.58	131.30	0
131	Water Soluble Mg (%)	0619	0.2555	0.0070	0.2650	0.0165	0.0113	3	-0.58	131.99	0
131	Water Soluble Mg (%)	0572	0.2840	0.0200	0.2650	0.0165	0.0113	3	1.15	131.99	0
143	Elemental S (%)	0389	1.905	0.0100	2.244	0.2286	0.0774	4	-1.48	143.99	0
143	Elemental S (%)	0291	2.315	0.0100	2.244	0.2286	0.0774	4	0.31	143.99	0
143	Elemental S (%)	0255	2.363	0.2050	2.244	0.2286	0.0774	4	0.52	143.99	0
143	Elemental S (%)	0368	2.395	0.0846	2.244	0.2286	0.0774	4	0.66	143.99	0
145	Sulfate S, HCl soluble (%)	0405	1.675	0.0700	1.921	0.3191	0.0625	4	-0.77	145.00	0
145	Sulfate S, HCl soluble (%)	0027	1.795	0.0700	1.921	0.3191	0.0625	4	-0.40	145.00	0
145	Sulfate S, HCl soluble (%)	0619	1.825	0.0100	1.921	0.3191	0.0625	4	-0.30	145.99	0
145	Sulfate S, HCl soluble (%)	0553	2.390	0.1000	1.921	0.3191	0.0625	4	1.47	145.99	0
148	Total S (2.5%)	0481	1.545†	0.0100	2.320	0.2006	0.0516	40	-3.86	148.99	0
148	Total S (2.5%)	0619	1.890†	0.0000	2.320	0.2006	0.0516	40	-2.14	148.07	0
148	Total S (2.5%)	0619	1.890†	0.0000	2.320	0.2006	0.0516	40	-2.14	148.99	0
148	Total S (2.5%)	0324	1.930†	0.0400	2.320	0.2006	0.0516	40	-1.94	148.01	0
148	Total S (2.5%)	0422	2.030	0.1010	2.320	0.2006	0.0516	40	-1.45	148.99	0
148	Total S (2.5%)	0433	2.055	0.0900	2.320	0.2006	0.0516	40	-1.32	148.99	0
148	Total S (2.5%)	0472	2.125	0.0100	2.320	0.2006	0.0516	40	-0.97	148.07	0
148	Total S (2.5%)	0572	2.132	0.0350	2.320	0.2006	0.0516	40	-0.94	148.99	0
148	Total S (2.5%)	0547	2.195	0.0300	2.320	0.2006	0.0516	40	-0.62	148.00	0
148	Total S (2.5%)	0095	2.200	0.0400	2.320	0.2006	0.0516	40	-0.60	148.01	0
148	Total S (2.5%)	0040	2.200	0.0000	2.320	0.2006	0.0516	40	-0.60	148.07	0
148	Total S (2.5%)	0419	2.225	0.0100	2.320	0.2006	0.0516	40	-0.47	148.99	0
148	Total S (2.5%)	0220	2.265	0.0300	2.320	0.2006	0.0516	40	-0.27	148.99	0
148	Total S (2.5%)	0450	2.275	0.0100	2.320	0.2006	0.0516	40	-0.22	148.99	0
148	Total S (2.5%)	0117	2.280	0.0647	2.320	0.2006	0.0516	40	-0.20	148.07	0
148	Total S (2.5%)	0055	2.285	0.0300	2.320	0.2006	0.0516	40	-0.17	148.01	0
148	Total S (2.5%)	0136	2.285	0.1100	2.320	0.2006	0.0516	40	-0.17	148.07	0
148	Total S (2.5%)	0029	2.293	0.0500	2.320	0.2006	0.0516	40	-0.13	148.00	0
148	Total S (2.5%)	0025	2.298	0.1050	2.320	0.2006	0.0516	40	-0.11	148.00	0
148	Total S (2.5%)	0580	2.300	0.2000	2.320	0.2006	0.0516	40	-0.10	148.01	0
148	Total S (2.5%)	0157	2.315	0.0500	2.320	0.2006	0.0516	40	-0.02	148.00	0
148	Total S (2.5%)	0260	2.335	0.1900	2.320	0.2006	0.0516	40	0.07	148.07	0
148	Total S (2.5%)	0354	2.370	0.0200	2.320	0.2006	0.0516	40	0.25	148.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
148	Total S (2.5%)	0377	2.375	0.0300	2.320	0.2006	0.0516	40	0.27	148.99	0
148	Total S (2.5%)	0563	2.390	0.0600	2.320	0.2006	0.0516	40	0.35	148.07	0
148	Total S (2.5%)	0102	2.395	0.0700	2.320	0.2006	0.0516	40	0.37	148.07	0
148	Total S (2.5%)	0543	2.405	0.0360	2.320	0.2006	0.0516	40	0.42	148.07	0
148	Total S (2.5%)	0452	2.420	0.0200	2.320	0.2006	0.0516	40	0.50	148.99	0
148	Total S (2.5%)	0451	2.423	0.0340	2.320	0.2006	0.0516	40	0.51	148.00	0
148	Total S (2.5%)	0073	2.455	0.0100	2.320	0.2006	0.0516	40	0.67	148.00	0
148	Total S (2.5%)	0177	2.473	0.0197	2.320	0.2006	0.0516	40	0.76	148.07	0
148	Total S (2.5%)	0049	2.480	0.0000	2.320	0.2006	0.0516	40	0.80	148.00	0
148	Total S (2.5%)	0562	2.515	0.0100	2.320	0.2006	0.0516	40	0.97	148.99	0
148	Total S (2.5%)	0559	2.525	0.0100	2.320	0.2006	0.0516	40	1.02	148.99	0
148	Total S (2.5%)	0600	2.525	0.1500	2.320	0.2006	0.0516	40	1.02	148.99	0
148	Total S (2.5%)	0485	2.535	0.1100	2.320	0.2006	0.0516	40	1.07	148.01	0
148	Total S (2.5%)	0534	2.560	0.0200	2.320	0.2006	0.0516	40	1.20	148.01	0
148	Total S (2.5%)	0043	2.565	0.0900	2.320	0.2006	0.0516	40	1.22	148.07	0
148	Total S (2.5%)	0527	2.599	0.1501	2.320	0.2006	0.0516	40	1.39	148.07	0
148	Total S (2.5%)	0523	3.230‡	0.0200	2.320	0.2006	0.0516	40	4.54	148.99	0
148	Total S (2.5%)	0501	2.250	0.5000	2.320	0.2006	0.0516	40	-0.35	148.99	1
149	S - HNO3 soluble (%)	0423	2.245	0.0300	2.307	0.0506	0.0424	4	-1.23	149.04	0
149	S - HNO3 soluble (%)	0588	2.305	0.0900	2.307	0.0506	0.0424	4	-0.04	149.04	0
149	S - HNO3 soluble (%)	0231	2.310	0.0000	2.307	0.0506	0.0424	4	0.06	149.04	0
149	S - HNO3 soluble (%)	0524	2.369	0.0497	2.307	0.0506	0.0424	4	1.22	149.04	0
151	Acid Soluble As (ppm)	0481	0.9200	0.0800	3.777	0.9864	0.2188	13	-2.90	151.99	0
151	Acid Soluble As (ppm)	0220	2.650	0.3000	3.777	0.9864	0.2188	13	-1.14	151.32	0
151	Acid Soluble As (ppm)	0534	2.955	0.1100	3.777	0.9864	0.2188	13	-0.83	151.00	0
151	Acid Soluble As (ppm)	0220	3.050	0.3000	3.777	0.9864	0.2188	13	-0.74	151.99	0
151	Acid Soluble As (ppm)	0524	3.562	0.0810	3.777	0.9864	0.2188	13	-0.22	151.30	0
151	Acid Soluble As (ppm)	0450	3.850	0.3000	3.777	0.9864	0.2188	13	0.07	151.30	0
151	Acid Soluble As (ppm)	0527	3.896	0.2262	3.777	0.9864	0.2188	13	0.12	151.33	0
151	Acid Soluble As (ppm)	0136	3.940	0.0800	3.777	0.9864	0.2188	13	0.17	151.33	0
151	Acid Soluble As (ppm)	0572	4.027	0.0090	3.777	0.9864	0.2188	13	0.25	151.99	0
151	Acid Soluble As (ppm)	0563	4.220	0.0000	3.777	0.9864	0.2188	13	0.45	151.33	0
151	Acid Soluble As (ppm)	0523	4.396	0.1180	3.777	0.9864	0.2188	13	0.63	151.30	0
151	Acid Soluble As (ppm)	0405	5.000	0.0000	3.777	0.9864	0.2188	13	1.24	151.32	0
151	Acid Soluble As (ppm)	0027	13.18	1.240	3.777	0.9864	0.2188	13	9.53	151.30	0
151	Acid Soluble As (ppm)	0419	42.65	3.230	3.777	0.9864	0.2188	13	39.41	151.30	1
151	Acid Soluble As (ppm)	0255	0.0000	0.0000	3.777	0.9864	0.2188	13		151.30	4
151	Acid Soluble As (ppm)	0485	< 0.2		3.777	0.9864	0.2188	13		151.32	5
151	Acid Soluble As (ppm)	0368	< 0.3		3.777	0.9864	0.2188	13		151.34	5
151	Acid Soluble As (ppm)	0117	< 10		3.777	0.9864	0.2188	13		151.33	5
165	Acid Soluble B (%)	0524	0.0013	0.0002				2		165.99	0
165	Acid Soluble B (%)	0423	0.0026	0.0000				2		165.99	0
165	Acid Soluble B (%)	0552	0.1050	0.2100				2		165.99	4

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
165	Acid Soluble B (%)	0354	< 0.01					2		165.30	5
165	Acid Soluble B (%)	0527	< 0.01					2		165.99	5
165	Acid Soluble B (%)	0572	< 0.0113					2		165.99	5
171	Water Soluble B (%)	0572	< 0.011					0		171.99	5
181	Acid Soluble Cd (ppm)	0563	0.6250	0.0100	1.015	0.3481	0.0406	12	-1.12	181.33	0
181	Acid Soluble Cd (ppm)	0481	0.6600	0.0800	1.015	0.3481	0.0406	12	-1.02	181.99	0
181	Acid Soluble Cd (ppm)	0524	0.7560	0.0269	1.015	0.3481	0.0406	12	-0.74	181.30	0
181	Acid Soluble Cd (ppm)	0389	0.8050	0.0100	1.015	0.3481	0.0406	12	-0.60	181.30	0
181	Acid Soluble Cd (ppm)	0368	0.8500	0.1000	1.015	0.3481	0.0406	12	-0.47	181.34	0
181	Acid Soluble Cd (ppm)	0572	0.9040	0.0660	1.015	0.3481	0.0406	12	-0.32	181.99	0
181	Acid Soluble Cd (ppm)	0523	1.003	0.0090	1.015	0.3481	0.0406	12	-0.04	181.30	0
181	Acid Soluble Cd (ppm)	0527	1.032	0.0055	1.015	0.3481	0.0406	12	0.05	181.33	0
181	Acid Soluble Cd (ppm)	0485	1.210	0.1600	1.015	0.3481	0.0406	12	0.56	181.32	0
181	Acid Soluble Cd (ppm)	0220	1.400	0.0000	1.015	0.3481	0.0406	12	1.11	181.32	0
181	Acid Soluble Cd (ppm)	0220	1.400	0.0000	1.015	0.3481	0.0406	12	1.11	181.99	0
181	Acid Soluble Cd (ppm)	0419	1.600	0.0200	1.015	0.3481	0.0406	12	1.68	181.30	0
181	Acid Soluble Cd (ppm)	0255	7.569	9.022	1.015	0.3481	0.0406	12	18.83	181.30	1
181	Acid Soluble Cd (ppm)	0534	< 0.5		1.015	0.3481	0.0406	12		181.00	5
181	Acid Soluble Cd (ppm)	0405	< 1		1.015	0.3481	0.0406	12		181.32	5
181	Acid Soluble Cd (ppm)	0136	< 1		1.015	0.3481	0.0406	12		181.33	5
181	Acid Soluble Cd (ppm)	0117	< 5		1.015	0.3481	0.0406	12		181.33	5
191	Acid Soluble Cr (ppm)	0136	20.77	3.040	41.37	14.08	2.756	16	-1.46	191.33	0
191	Acid Soluble Cr (ppm)	0368	27.30	0.4000	41.37	14.08	2.756	16	-1.00	191.34	0
191	Acid Soluble Cr (ppm)	0524	27.91	0.0899	41.37	14.08	2.756	16	-0.96	191.30	0
191	Acid Soluble Cr (ppm)	0220	31.10	0.2000	41.37	14.08	2.756	16	-0.73	191.32	0
191	Acid Soluble Cr (ppm)	0572	31.70	7.651	41.37	14.08	2.756	16	-0.69	191.99	0
191	Acid Soluble Cr (ppm)	0389	35.40	0.1300	41.37	14.08	2.756	16	-0.42	191.30	0
191	Acid Soluble Cr (ppm)	0220	37.60	0.4000	41.37	14.08	2.756	16	-0.27	191.99	0
191	Acid Soluble Cr (ppm)	0481	38.75	1.300	41.37	14.08	2.756	16	-0.19	191.99	0
191	Acid Soluble Cr (ppm)	0035	39.45	10.50	41.37	14.08	2.756	16	-0.14	191.30	0
191	Acid Soluble Cr (ppm)	0527	39.92	0.3231	41.37	14.08	2.756	16	-0.10	191.33	0
191	Acid Soluble Cr (ppm)	0563	51.18	5.000	41.37	14.08	2.756	16	0.70	191.33	0
191	Acid Soluble Cr (ppm)	0419	53.06	0.2500	41.37	14.08	2.756	16	0.83	191.30	0
191	Acid Soluble Cr (ppm)	0405	54.00	4.000	41.37	14.08	2.756	16	0.90	191.32	0
191	Acid Soluble Cr (ppm)	0523	55.37	0.0570	41.37	14.08	2.756	16	0.99	191.30	0
191	Acid Soluble Cr (ppm)	0117	55.95	1.762	41.37	14.08	2.756	16	1.04	191.33	0
191	Acid Soluble Cr (ppm)	0450	66.50	9.000	41.37	14.08	2.756	16	1.78	191.30	0
202	Acid Soluble Co (ppm)	0136	4.540	0.9400	13.18	5.449	0.7009	18	-1.59	202.33	0
202	Acid Soluble Co (ppm)	0572	6.126	0.1600	13.18	5.449	0.7009	18	-1.29	202.99	0
202	Acid Soluble Co (ppm)	0220	7.050	0.3000	13.18	5.449	0.7009	18	-1.13	202.32	0
202	Acid Soluble Co (ppm)	0368	7.400	1.400	13.18	5.449	0.7009	18	-1.06	202.34	0
202	Acid Soluble Co (ppm)	0035	10.13	2.350	13.18	5.449	0.7009	18	-0.56	202.30	0
202	Acid Soluble Co (ppm)	0220	10.45	0.1000	13.18	5.449	0.7009	18	-0.50	202.99	0

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			Value	Range	Rob Mean	Rob SD	Range				
202	Acid Soluble Co (ppm)	0527	12.26	0.3322	13.18	5.449	0.7009	18	-0.17	202.33	0
202	Acid Soluble Co (ppm)	0524	12.34	0.1525	13.18	5.449	0.7009	18	-0.15	202.30	0
202	Acid Soluble Co (ppm)	0389	12.95	0.1000	13.18	5.449	0.7009	18	-0.04	202.30	0
202	Acid Soluble Co (ppm)	0501	14.00	2.000	13.18	5.449	0.7009	18	0.15	202.34	0
202	Acid Soluble Co (ppm)	0563	14.95	1.610	13.18	5.449	0.7009	18	0.32	202.33	0
202	Acid Soluble Co (ppm)	0485	15.00	0.0000	13.18	5.449	0.7009	18	0.33	202.32	0
202	Acid Soluble Co (ppm)	0423	15.10	0.2500	13.18	5.449	0.7009	18	0.35	202.32	0
202	Acid Soluble Co (ppm)	0450	16.20	0.8000	13.18	5.449	0.7009	18	0.55	202.30	0
202	Acid Soluble Co (ppm)	0405	18.50	1.000	13.18	5.449	0.7009	18	0.98	202.32	0
202	Acid Soluble Co (ppm)	0523	19.30	0.0800	13.18	5.449	0.7009	18	1.12	202.30	0
202	Acid Soluble Co (ppm)	0117	19.70	0.2820	13.18	5.449	0.7009	18	1.20	202.33	0
202	Acid Soluble Co (ppm)	0419	20.83	0.7600	13.18	5.449	0.7009	18	1.40	202.30	0
202	Acid Soluble Co (ppm)	0255	59.08	15.01	13.18	5.449	0.7009	18	8.42	202.99	1
221	Acid Soluble Cu (%)	0523	0.0010	0.0000	0.0036	0.0004	0.0001	21	-6.62	221.99	0
221	Acid Soluble Cu (%)	0524	0.0029	0.0001	0.0036	0.0004	0.0001	21	-1.99	221.99	0
221	Acid Soluble Cu (%)	0534	0.0031	0.0001	0.0036	0.0004	0.0001	21	-1.49	221.03	0
221	Acid Soluble Cu (%)	0220	0.0033	0.0001	0.0036	0.0004	0.0001	21	-0.99	221.32	0
221	Acid Soluble Cu (%)	0035	0.0035	0.0001	0.0036	0.0004	0.0001	21	-0.49	221.30	0
221	Acid Soluble Cu (%)	0563	0.0035	0.0001	0.0036	0.0004	0.0001	21	-0.49	221.33	0
221	Acid Soluble Cu (%)	0423	0.0035	0.0000	0.0036	0.0004	0.0001	21	-0.36	221.32	0
221	Acid Soluble Cu (%)	0220	0.0035	0.0000	0.0036	0.0004	0.0001	21	-0.36	221.99	0
221	Acid Soluble Cu (%)	0136	0.0036	0.0003	0.0036	0.0004	0.0001	21	-0.24	221.33	0
221	Acid Soluble Cu (%)	0368	0.0036	0.0001	0.0036	0.0004	0.0001	21	-0.24	221.99	0
221	Acid Soluble Cu (%)	0405	0.0037	0.0002	0.0036	0.0004	0.0001	21	0.14	221.32	0
221	Acid Soluble Cu (%)	0095	0.0038	0.0001	0.0036	0.0004	0.0001	21	0.26	221.32	0
221	Acid Soluble Cu (%)	0043	0.0038	0.0001	0.0036	0.0004	0.0001	21	0.26	221.33	0
221	Acid Soluble Cu (%)	0527	0.0038	0.0001	0.0036	0.0004	0.0001	21	0.26	221.33	0
221	Acid Soluble Cu (%)	0117	0.0040	0.0001	0.0036	0.0004	0.0001	21	0.76	221.33	0
221	Acid Soluble Cu (%)	0049	0.0040	0.0000	0.0036	0.0004	0.0001	21	0.89	221.30	0
221	Acid Soluble Cu (%)	0255	0.0040	0.0000	0.0036	0.0004	0.0001	21	0.89	221.30	0
221	Acid Soluble Cu (%)	0389	0.0040	0.0000	0.0036	0.0004	0.0001	21	0.89	221.99	0
221	Acid Soluble Cu (%)	0481	0.0040	0.0000	0.0036	0.0004	0.0001	21	0.89	221.99	0
221	Acid Soluble Cu (%)	0572	0.0040	0.0000	0.0036	0.0004	0.0001	21	0.89	221.99	0
221	Acid Soluble Cu (%)	0419	0.0062	0.0003	0.0036	0.0004	0.0001	21	6.27	221.33	0
221	Acid Soluble Cu (%)	0552	0.0000	0.0000	0.0036	0.0004	0.0001	21		221.30	4
221	Acid Soluble Cu (%)	0354	< 0.01		0.0036	0.0004	0.0001	21		221.30	5
241	Acid Soluble Fe (0.2%)	0534	0.09900†	0.0020	0.2991	0.0421	0.0083	49	-4.76	241.00	0
241	Acid Soluble Fe (0.2%)	0619	0.1935†	0.0010	0.2991	0.0421	0.0083	49	-2.51	241.30	0
241	Acid Soluble Fe (0.2%)	0619	0.1935†	0.0010	0.2991	0.0421	0.0083	49	-2.51	241.31	0
241	Acid Soluble Fe (0.2%)	0619	0.1950†	0.0000	0.2991	0.0421	0.0083	49	-2.48	241.99	0
241	Acid Soluble Fe (0.2%)	0042	0.2100†	0.0000	0.2991	0.0421	0.0083	49	-2.12	241.99	0
241	Acid Soluble Fe (0.2%)	0553	0.2180†	0.0100	0.2991	0.0421	0.0083	49	-1.93	241.00	0
241	Acid Soluble Fe (0.2%)	0377	0.2280†	0.0200	0.2991	0.0421	0.0083	49	-1.69	241.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
241	Acid Soluble Fe (0.2%)	0452	0.2600†	0.0000	0.2991	0.0421	0.0083	49	-0.93	241.30	0
241	Acid Soluble Fe (0.2%)	0524	0.2640†	0.0067	0.2991	0.0421	0.0083	49	-0.84	241.99	0
241	Acid Soluble Fe (0.2%)	0543	0.2645	0.0070	0.2991	0.0421	0.0083	49	-0.82	241.33	0
241	Acid Soluble Fe (0.2%)	0563	0.2650	0.0100	0.2991	0.0421	0.0083	49	-0.81	241.33	0
241	Acid Soluble Fe (0.2%)	0324	0.2790	0.0240	0.2991	0.0421	0.0083	49	-0.48	241.30	0
241	Acid Soluble Fe (0.2%)	0572	0.2795	0.0050	0.2991	0.0421	0.0083	49	-0.47	241.99	0
241	Acid Soluble Fe (0.2%)	0501	0.2800	0.0200	0.2991	0.0421	0.0083	49	-0.45	241.99	0
241	Acid Soluble Fe (0.2%)	0562	0.2800	0.0000	0.2991	0.0421	0.0083	49	-0.45	241.99	0
241	Acid Soluble Fe (0.2%)	0035	0.2845	0.0190	0.2991	0.0421	0.0083	49	-0.35	241.30	0
241	Acid Soluble Fe (0.2%)	0231	0.2850	0.0100	0.2991	0.0421	0.0083	49	-0.34	241.30	0
241	Acid Soluble Fe (0.2%)	0136	0.2900	0.0000	0.2991	0.0421	0.0083	49	-0.22	241.33	0
241	Acid Soluble Fe (0.2%)	0472	0.2900	0.0000	0.2991	0.0421	0.0083	49	-0.22	241.33	0
241	Acid Soluble Fe (0.2%)	0600	0.2900	0.0200	0.2991	0.0421	0.0083	49	-0.22	241.99	0
241	Acid Soluble Fe (0.2%)	0027	0.2950	0.0100	0.2991	0.0421	0.0083	49	-0.10	241.99	0
241	Acid Soluble Fe (0.2%)	0043	0.2962	0.0003	0.2991	0.0421	0.0083	49	-0.07	241.33	0
241	Acid Soluble Fe (0.2%)	0580	0.3000	0.0000	0.2991	0.0421	0.0083	49	0.02	241.00	0
241	Acid Soluble Fe (0.2%)	0234	0.3000	0.0000	0.2991	0.0421	0.0083	49	0.02	241.30	0
241	Acid Soluble Fe (0.2%)	0389	0.3000	0.0020	0.2991	0.0421	0.0083	49	0.02	241.99	0
241	Acid Soluble Fe (0.2%)	0157	0.3005	0.0150	0.2991	0.0421	0.0083	49	0.03	241.30	0
241	Acid Soluble Fe (0.2%)	0368	0.3022	0.0002	0.2991	0.0421	0.0083	49	0.07	241.99	0
241	Acid Soluble Fe (0.2%)	0587	0.3050	0.0300	0.2991	0.0421	0.0083	49	0.14	241.99	0
241	Acid Soluble Fe (0.2%)	0029	0.3113	0.0036	0.2991	0.0421	0.0083	49	0.29	241.00	0
241	Acid Soluble Fe (0.2%)	0095	0.3136	0.0152	0.2991	0.0421	0.0083	49	0.34	241.32	0
241	Acid Soluble Fe (0.2%)	0055	0.3150	0.0100	0.2991	0.0421	0.0083	49	0.38	241.33	0
241	Acid Soluble Fe (0.2%)	0485	0.3165	0.0050	0.2991	0.0421	0.0083	49	0.41	241.00	0
241	Acid Soluble Fe (0.2%)	0451	0.3182	0.0013	0.2991	0.0421	0.0083	49	0.45	241.30	0
241	Acid Soluble Fe (0.2%)	0255	0.3188	0.0267	0.2991	0.0421	0.0083	49	0.47	241.30	0
241	Acid Soluble Fe (0.2%)	0040	0.3200	0.0000	0.2991	0.0421	0.0083	49	0.50	241.00	0
241	Acid Soluble Fe (0.2%)	0220	0.3200	0.0000	0.2991	0.0421	0.0083	49	0.50	241.32	0
241	Acid Soluble Fe (0.2%)	0049	0.3239	0.0086	0.2991	0.0421	0.0083	49	0.59	241.30	0
241	Acid Soluble Fe (0.2%)	0423	0.3245	0.0010	0.2991	0.0421	0.0083	49	0.60	241.32	0
241	Acid Soluble Fe (0.2%)	0354	0.3300	0.0000	0.2991	0.0421	0.0083	49	0.73	241.30	0
241	Acid Soluble Fe (0.2%)	0405	0.3300	0.0080	0.2991	0.0421	0.0083	49	0.73	241.32	0
241	Acid Soluble Fe (0.2%)	0419	0.3300	0.0000	0.2991	0.0421	0.0083	49	0.73	241.33	0
241	Acid Soluble Fe (0.2%)	0481	0.3350‡	0.0300	0.2991	0.0421	0.0083	49	0.85	241.99	0
241	Acid Soluble Fe (0.2%)	0291	0.3350‡	0.0100	0.2991	0.0421	0.0083	49	0.85	241.30	0
241	Acid Soluble Fe (0.2%)	0177	0.3436‡	0.0103	0.2991	0.0421	0.0083	49	1.06	241.33	0
241	Acid Soluble Fe (0.2%)	0260	0.3595‡	0.0250	0.2991	0.0421	0.0083	49	1.44	241.33	0
241	Acid Soluble Fe (0.2%)	0527	0.3644‡	0.0059	0.2991	0.0421	0.0083	49	1.55	241.33	0
241	Acid Soluble Fe (0.2%)	0117	0.3711‡	0.0205	0.2991	0.0421	0.0083	49	1.71	241.33	0
241	Acid Soluble Fe (0.2%)	0102	0.3850‡	0.0100	0.2991	0.0421	0.0083	49	2.04	241.33	0
241	Acid Soluble Fe (0.2%)	0523	0.4175‡	0.0010	0.2991	0.0421	0.0083	49	2.82	241.99	0
241	Acid Soluble Fe (0.2%)	0552	0.2450†	0.0900	0.2991	0.0421	0.0083	49	-1.29	241.30	1

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
241	Acid Soluble Fe (0.2%)	0433	0.3200	0.0600	0.2991	0.0421	0.0083	49	0.50	241.30	1
251	Acid Soluble Pb (ppm)	0481	0.9600	0.0600	2.289	0.9315	0.2682	11	-1.43	251.99	0
251	Acid Soluble Pb (ppm)	0524	1.641	0.0671	2.289	0.9315	0.2682	11	-0.70	251.30	0
251	Acid Soluble Pb (ppm)	0501	1.750	0.5000	2.289	0.9315	0.2682	11	-0.58	251.30	0
251	Acid Soluble Pb (ppm)	0563	1.885	0.0100	2.289	0.9315	0.2682	11	-0.43	251.33	0
251	Acid Soluble Pb (ppm)	0450	2.000	0.2000	2.289	0.9315	0.2682	11	-0.31	251.30	0
251	Acid Soluble Pb (ppm)	0527	2.210	0.0087	2.289	0.9315	0.2682	11	-0.08	251.33	0
251	Acid Soluble Pb (ppm)	0523	2.358	0.0490	2.289	0.9315	0.2682	11	0.07	251.30	0
251	Acid Soluble Pb (ppm)	0572	2.402	0.6350	2.289	0.9315	0.2682	11	0.12	251.99	0
251	Acid Soluble Pb (ppm)	0220	2.600	0.6000	2.289	0.9315	0.2682	11	0.33	251.99	0
251	Acid Soluble Pb (ppm)	0220	4.600	0.4000	2.289	0.9315	0.2682	11	2.48	251.32	0
251	Acid Soluble Pb (ppm)	0419	14.30	0.4200	2.289	0.9315	0.2682	11	12.89	251.30	0
251	Acid Soluble Pb (ppm)	0255	0.0000	0.0000	2.289	0.9315	0.2682	11		251.30	4
251	Acid Soluble Pb (ppm)	0485	< 0.2		2.289	0.9315	0.2682	11		251.32	5
251	Acid Soluble Pb (ppm)	0368	< 0.6		2.289	0.9315	0.2682	11		251.34	5
251	Acid Soluble Pb (ppm)	0136	< 3		2.289	0.9315	0.2682	11		251.33	5
251	Acid Soluble Pb (ppm)	0405	< 4		2.289	0.9315	0.2682	11		251.32	5
251	Acid Soluble Pb (ppm)	0117	< 5		2.289	0.9315	0.2682	11		251.33	5
261	Acid Soluble Mn (%)	0524	0.0397	0.0006	0.0422	0.0023	0.0012	10	-1.01	261.99	0
261	Acid Soluble Mn (%)	0354	0.0400	0.0000	0.0422	0.0023	0.0012	10	-0.89	261.30	0
261	Acid Soluble Mn (%)	0472	0.0400	0.0000	0.0422	0.0023	0.0012	10	-0.89	261.35	0
261	Acid Soluble Mn (%)	0035	0.0405	0.0030	0.0422	0.0023	0.0012	10	-0.69	261.30	0
261	Acid Soluble Mn (%)	0423	0.0425	0.0010	0.0422	0.0023	0.0012	10	0.11	261.34	0
261	Acid Soluble Mn (%)	0389	0.0425	0.0010	0.0422	0.0023	0.0012	10	0.11	261.99	0
261	Acid Soluble Mn (%)	0572	0.0435	0.0030	0.0422	0.0023	0.0012	10	0.51	261.99	0
261	Acid Soluble Mn (%)	0563	0.0440	0.0020	0.0422	0.0023	0.0012	10	0.71	261.35	0
261	Acid Soluble Mn (%)	0419	0.0445	0.0010	0.0422	0.0023	0.0012	10	0.91	261.35	0
261	Acid Soluble Mn (%)	0527	0.0451	0.0006	0.0422	0.0023	0.0012	10	1.15	261.35	0
261	Acid Soluble Mn (%)	0552	0.0100	0.0200	0.0422	0.0023	0.0012	10		261.32	4
281	Acid Soluble Hg (ppm)	0450	0.0350	0.0100	0.0542	0.0138	0.0063	6	-1.24	281.30	0
281	Acid Soluble Hg (ppm)	0524	0.0476	0.0036	0.0542	0.0138	0.0063	6	-0.42	281.99	0
281	Acid Soluble Hg (ppm)	0572	0.0540	0.0000	0.0542	0.0138	0.0063	6	-0.01	281.99	0
281	Acid Soluble Hg (ppm)	0368	0.0573	0.0102	0.0542	0.0138	0.0063	6	0.20	281.99	0
281	Acid Soluble Hg (ppm)	0220	0.0600	0.0000	0.0542	0.0138	0.0063	6	0.38	281.99	0
281	Acid Soluble Hg (ppm)	0563	0.0710	0.0140	0.0542	0.0138	0.0063	6	1.09	281.30	0
281	Acid Soluble Hg (ppm)	0527	< 0.001		0.0542	0.0138	0.0063	6		281.30	5
281	Acid Soluble Hg (ppm)	0481	< 0.5		0.0542	0.0138	0.0063	6		281.00	5
281	Acid Soluble Hg (ppm)	0405	< 2		0.0542	0.0138	0.0063	6		281.30	5
289	Acid Soluble Mo (ppm)	0523	1.550	0.0030	3.260	1.261	0.2869	14	-1.36	289.30	0
289	Acid Soluble Mo (ppm)	0368	1.750	0.9000	3.260	1.261	0.2869	14	-1.20	289.34	0
289	Acid Soluble Mo (ppm)	0234	2.000	0.0000	3.260	1.261	0.2869	14	-1.00	289.30	0
289	Acid Soluble Mo (ppm)	0136	2.225	0.2500	3.260	1.261	0.2869	14	-0.82	289.33	0
289	Acid Soluble Mo (ppm)	0524	2.946	0.0817	3.260	1.261	0.2869	14	-0.25	289.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
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289	Acid Soluble Mo (ppm)	0563	3.200	0.5000	3.260	1.261	0.2869	14	-0.05	289.33	0
289	Acid Soluble Mo (ppm)	0527	3.236	0.3244	3.260	1.261	0.2869	14	-0.02	289.33	0
289	Acid Soluble Mo (ppm)	0220	3.450	0.1000	3.260	1.261	0.2869	14	0.15	289.32	0
289	Acid Soluble Mo (ppm)	0572	3.490	0.3800	3.260	1.261	0.2869	14	0.18	289.99	0
289	Acid Soluble Mo (ppm)	0423	3.550	0.0800	3.260	1.261	0.2869	14	0.23	289.33	0
289	Acid Soluble Mo (ppm)	0405	4.000	0.0000	3.260	1.261	0.2869	14	0.59	289.32	0
289	Acid Soluble Mo (ppm)	0220	4.050	0.1000	3.260	1.261	0.2869	14	0.63	289.99	0
289	Acid Soluble Mo (ppm)	0255	5.044	0.6880	3.260	1.261	0.2869	14	1.41	289.30	0
289	Acid Soluble Mo (ppm)	0419	6.525	0.6100	3.260	1.261	0.2869	14	2.59	289.30	0
289	Acid Soluble Mo (ppm)	0035	2.870	1.560	3.260	1.261	0.2869	14	-0.31	289.30	1
289	Acid Soluble Mo (ppm)	0485	< 0.1		3.260	1.261	0.2869	14		289.32	5
289	Acid Soluble Mo (ppm)	0117	< 5		3.260	1.261	0.2869	14		289.33	5
291	Acid Soluble Ni (ppm)	0136	10.64	1.090	20.08	4.318	1.152	17	-2.19	291.33	0
291	Acid Soluble Ni (ppm)	0368	16.10	0.2000	20.08	4.318	1.152	17	-0.92	291.34	0
291	Acid Soluble Ni (ppm)	0527	16.25	1.320	20.08	4.318	1.152	17	-0.89	291.33	0
291	Acid Soluble Ni (ppm)	0572	16.71	3.369	20.08	4.318	1.152	17	-0.78	291.99	0
291	Acid Soluble Ni (ppm)	0220	16.85	0.1000	20.08	4.318	1.152	17	-0.75	291.32	0
291	Acid Soluble Ni (ppm)	0485	17.25	0.1000	20.08	4.318	1.152	17	-0.66	291.32	0
291	Acid Soluble Ni (ppm)	0035	17.90	3.800	20.08	4.318	1.152	17	-0.51	291.30	0
291	Acid Soluble Ni (ppm)	0389	19.00	0.1300	20.08	4.318	1.152	17	-0.25	291.30	0
291	Acid Soluble Ni (ppm)	0524	19.37	0.1857	20.08	4.318	1.152	17	-0.17	291.30	0
291	Acid Soluble Ni (ppm)	0220	20.65	0.3000	20.08	4.318	1.152	17	0.13	291.99	0
291	Acid Soluble Ni (ppm)	0450	21.50	1.000	20.08	4.318	1.152	17	0.33	291.30	0
291	Acid Soluble Ni (ppm)	0563	22.39	1.620	20.08	4.318	1.152	17	0.53	291.33	0
291	Acid Soluble Ni (ppm)	0405	23.50	1.000	20.08	4.318	1.152	17	0.79	291.32	0
291	Acid Soluble Ni (ppm)	0117	23.86	0.5140	20.08	4.318	1.152	17	0.87	291.33	0
291	Acid Soluble Ni (ppm)	0501	24.50	3.000	20.08	4.318	1.152	17	1.02	291.34	0
291	Acid Soluble Ni (ppm)	0523	25.69	0.4720	20.08	4.318	1.152	17	1.30	291.30	0
291	Acid Soluble Ni (ppm)	0419	26.30	1.390	20.08	4.318	1.152	17	1.44	291.30	0
291	Acid Soluble Ni (ppm)	0255	70.66	14.38	20.08	4.318	1.152	17	11.71	291.99	1
301	Acid Soluble Se (ppm)	0524	1.187	0.0617	1.977	0.6544	0.4325	7	-1.21	301.30	0
301	Acid Soluble Se (ppm)	0523	1.549	0.3280	1.977	0.6544	0.4325	7	-0.65	301.30	0
301	Acid Soluble Se (ppm)	0572	1.752	0.0080	1.977	0.6544	0.4325	7	-0.34	301.99	0
301	Acid Soluble Se (ppm)	0220	2.000	0.0000	1.977	0.6544	0.4325	7	0.03	301.32	0
301	Acid Soluble Se (ppm)	0220	2.000	0.2000	1.977	0.6544	0.4325	7	0.03	301.99	0
301	Acid Soluble Se (ppm)	0563	2.395	0.0900	1.977	0.6544	0.4325	7	0.64	301.33	0
301	Acid Soluble Se (ppm)	0419	36.17	2.340	1.977	0.6544	0.4325	7	52.25	301.30	0
301	Acid Soluble Se (ppm)	0255	35.04	38.38	1.977	0.6544	0.4325	7	50.52	301.99	1
301	Acid Soluble Se (ppm)	0527	< 0.01		1.977	0.6544	0.4325	7		301.33	5
301	Acid Soluble Se (ppm)	0481	< 0.5		1.977	0.6544	0.4325	7		301.99	5
301	Acid Soluble Se (ppm)	0368	< 1.1		1.977	0.6544	0.4325	7		301.34	5
301	Acid Soluble Se (ppm)	0405	< 10		1.977	0.6544	0.4325	7		301.32	5
311	Sodium (%)	0572	0.6275	0.0170	0.6810	0.0443	0.0095	6	-1.07	311.99	0



Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
311	Sodium (%)	0423	0.6475	0.0010	0.6810	0.0443	0.0095	6	-0.67	311.33	0
311	Sodium (%)	0035	0.6720	0.0040	0.6810	0.0443	0.0095	6	-0.18	311.33	0
311	Sodium (%)	0354	0.6950	0.0100	0.6810	0.0443	0.0095	6	0.28	311.99	0
311	Sodium (%)	0527	0.7191	0.0147	0.6810	0.0443	0.0095	6	0.76	311.33	0
311	Sodium (%)	0291	0.7250	0.0100	0.6810	0.0443	0.0095	6	0.88	311.99	0
321	Acid Soluble Zn (%)	0485	0.0147	0.0006	0.0173	0.0024	0.0010	23	-1.10	321.32	0
321	Acid Soluble Zn (%)	0136	0.0150	0.0000	0.0173	0.0024	0.0010	23	-0.98	321.33	0
321	Acid Soluble Zn (%)	0481	0.0150	0.0000	0.0173	0.0024	0.0010	23	-0.98	321.99	0
321	Acid Soluble Zn (%)	0220	0.0152	0.0002	0.0173	0.0024	0.0010	23	-0.89	321.99	0
321	Acid Soluble Zn (%)	0220	0.0154	0.0002	0.0173	0.0024	0.0010	23	-0.81	321.32	0
321	Acid Soluble Zn (%)	0405	0.0156	0.0004	0.0173	0.0024	0.0010	23	-0.72	321.32	0
321	Acid Soluble Zn (%)	0524	0.0160	0.0005	0.0173	0.0024	0.0010	23	-0.58	321.99	0
321	Acid Soluble Zn (%)	0035	0.0160	0.0000	0.0173	0.0024	0.0010	23	-0.55	321.30	0
321	Acid Soluble Zn (%)	0049	0.0160	0.0000	0.0173	0.0024	0.0010	23	-0.55	321.30	0
321	Acid Soluble Zn (%)	0117	0.0160	0.0018	0.0173	0.0024	0.0010	23	-0.55	321.33	0
321	Acid Soluble Zn (%)	0389	0.0160	0.0000	0.0173	0.0024	0.0010	23	-0.55	321.99	0
321	Acid Soluble Zn (%)	0043	0.0168	0.0007	0.0173	0.0024	0.0010	23	-0.24	321.33	0
321	Acid Soluble Zn (%)	0527	0.0174	0.0001	0.0173	0.0024	0.0010	23	0.01	321.33	0
321	Acid Soluble Zn (%)	0419	0.0175	0.0010	0.0173	0.0024	0.0010	23	0.08	321.33	0
321	Acid Soluble Zn (%)	0572	0.0175	0.0010	0.0173	0.0024	0.0010	23	0.08	321.99	0
321	Acid Soluble Zn (%)	0255	0.0180	0.0000	0.0173	0.0024	0.0010	23	0.29	321.30	0
321	Acid Soluble Zn (%)	0095	0.0182	0.0012	0.0173	0.0024	0.0010	23	0.37	321.32	0
321	Acid Soluble Zn (%)	0534	0.0195	0.0010	0.0173	0.0024	0.0010	23	0.92	321.03	0
321	Acid Soluble Zn (%)	0354	0.0200	0.0000	0.0173	0.0024	0.0010	23	1.13	321.30	0
321	Acid Soluble Zn (%)	0472	0.0200	0.0000	0.0173	0.0024	0.0010	23	1.13	321.33	0
321	Acid Soluble Zn (%)	0368	0.0213	0.0046	0.0173	0.0024	0.0010	23	1.68	321.99	0
321	Acid Soluble Zn (%)	0523	0.0290	0.0000	0.0173	0.0024	0.0010	23	4.93	321.99	0
321	Acid Soluble Zn (%)	0552	0.0850	0.0100	0.0173	0.0024	0.0010	23	28.54	321.30	0
321	Acid Soluble Zn (%)	0260	173.4	1.150	0.0173	0.0024	0.0010	23	73109.67	321.33	2
325	Water Soluble Zn (%)	0572	0.0015	0.0010				1		325.99	0
431	Soluble Si in nonliquids (%)	0572	< 0.0066					0		431.99	5
441	Humic Acids (%)	0600	3.200	0.2000	5.062	2.235	0.1708	8	-0.76	441.99	0
441	Humic Acids (%)	0518	3.300	0.2000	5.062	2.235	0.1708	8	-0.72	441.10	0
441	Humic Acids (%)	0559	3.425	0.0100	5.062	2.235	0.1708	8	-0.67	441.99	0
441	Humic Acids (%)	0562	3.430	0.0200	5.062	2.235	0.1708	8	-0.67	441.99	0
441	Humic Acids (%)	0368	5.517	0.0310	5.062	2.235	0.1708	8	0.19	441.10	0
441	Humic Acids (%)	0527	6.720	0.2555	5.062	2.235	0.1708	8	0.68	441.10	0
441	Humic Acids (%)	0547	6.780	0.1800	5.062	2.235	0.1708	8	0.70	441.10	0
441	Humic Acids (%)	0572	8.125	0.4700	5.062	2.235	0.1708	8	1.25	441.10	0
441	Humic Acids (%)	0220	< 0.01		5.062	2.235	0.1708	8		441.00	5
441	Humic Acids (%)	0220	< 0.01		5.062	2.235	0.1708	8		441.10	5

**Interpreting Z Scores and Flags:**

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)

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				

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.

**Notes:**

Robust statistics not used if < 6 labs used in calculations, in this case Values and Z Scores are grayed out and should be interpreted with extreme caution. Your offset values are higher (‡) or lower (†) than the Robust Analyte value ± Investigational Allowance. 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.