

Analyte PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Analytes: 33

Sample # 240411

Regular PT Scheme

Labs Reporting: 65

Macro-Micro-Humic

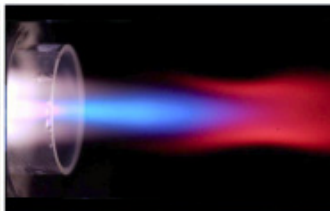
Statistical Summary

Issue Date : 05/31/2024

Analyte Code	Analyte Sample # 240411	# 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 (%)	1		1.149									
005	Urea N (%)	1		0.0777									
010	Total N (%)	8	7	3.712	4.646	2.070	0.4900	0.0657	0.0310	3.17%	0.31	0.0289	3.58%
020	Total P2O5 (%)	7	7	1.661	0.2644	1.718		0.1492	0.0705	8.68%		0.0346	3.69%
041	Direct Available P2O5 (%)	5	5	1.633	0.3733	1.633	0.6700	0.3733	0.2087	22.86%	1.30	0.0233	3.72%
048	Water Soluble P2O5 (%)	1		0.0100									
050	Soluble K2O (%)	9	9	0.7556	0.0984	0.7657	0.4100	0.0739	0.0308	9.65%	0.42	0.0178	4.16%
060	Water (Free) (%)	1		2.938									
101	Acid Soluble Ca (9%)	55	53	8.301	0.6984	8.346	0.6173	0.5079	0.0872	6.09%	1.92	0.1302	2.91%
121	Acid Soluble Mg (%)	13	12	0.5263	0.0345	0.5273	0.2264	0.0407	0.0147	7.72%	0.42	0.0123	4.40%
143	Elemental S (%)	5	5	8.090	4.297	8.090		4.297	2.402	53.12%		0.0100	2.92%
145	Sulfate S, HCl soluble (%)	15	14	9.370	0.4081	9.324		0.4193	0.1401	4.50%		0.1394	2.86%
148	Total S (9%)	34	33	10.12	1.034	10.08	0.7039	0.4093	0.0891	4.06%	1.35	0.1510	2.83%
149	S - HNO3 soluble (%)	5	5	9.980	0.1611	9.980		0.1611	0.0901	1.61%		0.1443	2.83%
151	Acid Soluble As (ppm)	15	9	3.694	4.782	2.073		1.913	0.7972	92.28%		0.1466	14.33%
165	Acid Soluble B (1.5%)	46	45	2.147	1.295	1.966	0.2979	0.1499	0.0279	7.63%	1.17	0.0494	3.61%
171	Water Soluble B (%)	9	9	1.723	0.2706	1.726		0.3008	0.1253	17.43%		0.0669	3.68%
181	Acid Soluble Cd (ppm)	16	12	1.982	1.795	1.364		0.2589	0.0934	18.97%		0.0847	15.27%
191	Acid Soluble Cr (ppm)	13	12	18.71	10.93	16.06		6.264	2.260	39.01%		1.276	10.53%
202	Acid Soluble Co (ppm)	13	12	12.90	2.655	12.88	4.8633	2.558	0.9231	19.87%	1.23	0.7158	10.89%
221	Acid Soluble Cu (%)	23	21	0.1341	0.1878	0.0961	0.0146	0.0046	0.0013	4.80%	0.74	0.0020	5.69%
241	Acid Soluble Fe (1%)	57	56	1.347	0.1046	1.348	0.1398	0.0890	0.0149	6.61%	1.48	0.0297	3.82%
251	Acid Soluble Pb (ppm)	15	10	5.267	3.238	5.350		2.961	1.170	55.34%		0.8174	12.43%
261	Acid Soluble Mn (1.5%)	57	56	1.895	0.1744	1.895	0.1945	0.1420	0.0237	7.49%	1.70	0.0441	3.63%
271	Water Soluble Mn (%)	3	3	1.500	0.1126	1.500		0.1126	0.0812	7.51%		0.0267	3.76%
281	Acid Soluble Hg (ppm)	10	5	0.4162	0.6631	0.1401		0.0413	0.0231	29.45%		0.0014	21.50%
289	Acid Soluble Mo (ppm)	15	12	5.859	3.381	6.029	2.8087	2.953	1.066	48.98%	2.45	0.3854	12.21%
291	Acid Soluble Ni (ppm)	16	15	18.29	5.759	16.93		3.654	1.179	21.59%		0.9018	10.45%
301	Acid Soluble Se (ppm)	12	9	5.085	5.189	5.997		4.942	2.059	82.42%		1.515	12.22%

Analyte Code	Analyte Sample # 240411	# 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
311	Sodium (%)	6	6	2.419	0.1015	2.419	0.2469	0.1151	0.0587	4.76%	1.09	0.0232	3.50%
321	Acid Soluble Zn (2%)	58	55	2.915	0.8837	2.801	0.2851	0.2050	0.0346	7.32%	1.68	0.0477	3.43%
325	Water Soluble Zn (%)	4	4	1.077	0.9502	1.077		0.9502	0.5939	88.25%		0.0673	3.96%
441	Humic Acids (5%)	15	13	6.917	7.473	5.292		0.9710	0.3366	18.35%		0.0744	3.11%

The Analyte IA Ratio = $2.33 * \text{Robust SD} / \text{IA at the Analyte Assigned Value}$. 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: 33

Sample # 240411

Regular PT Scheme

Labs Reporting: 65

Macro-Micro-Humic

Lab Values

Issue Date : 05/31/2024

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
001	Ammoniacal N (%)	0524	1.149	0.0064				1		001.99	0
005	Urea N (%)	0524	0.0777	0.0196				1		005.99	0
010	Total N (%)	0524	1.981	0.0395	2.070	0.0657	0.0289	7	-1.22	010.99	0
010	Total N (%)	0422	2.030	0.0400	2.070	0.0657	0.0289	7	-0.55	010.60	0
010	Total N (%)	0588	2.060	0.0200	2.070	0.0657	0.0289	7	-0.14	010.60	0
010	Total N (%)	0354	2.065	0.0100	2.070	0.0657	0.0289	7	-0.07	010.60	0
010	Total N (%)	0527	2.068	0.0340	2.070	0.0657	0.0289	7	-0.03	010.60	0
010	Total N (%)	0568	2.140	0.0000	2.070	0.0657	0.0289	7	0.97	010.12	0
010	Total N (%)	0472	2.145	0.0300	2.070	0.0657	0.0289	7	1.03	010.60	0
010	Total N (%)	0034	15.21	0.0400	2.070	0.0657	0.0289	7	180.96	010.60	2
020	Total P2O5 (%)	0423	1.095	0.0300	1.718	0.1492	0.0346	7	-3.78	020.50	0
020	Total P2O5 (%)	0524	1.633	0.0458	1.718	0.1492	0.0346	7	-0.52	020.50	0
020	Total P2O5 (%)	0422	1.719	0.0290	1.718	0.1492	0.0346	7	0.00	020.50	0
020	Total P2O5 (%)	0472	1.720	0.0200	1.718	0.1492	0.0346	7	0.01	020.50	0
020	Total P2O5 (%)	0588	1.739	0.0880	1.718	0.1492	0.0346	7	0.13	020.50	0
020	Total P2O5 (%)	0572	1.812	0.0409	1.718	0.1492	0.0346	7	0.57	020.99	0
020	Total P2O5 (%)	0527	1.911	0.0132	1.718	0.1492	0.0346	7	1.17	020.50	0
041	Direct Available P2O5 (%)	0423	1.055	0.0100	1.633	0.3733	0.0233	5	-1.55	041.51	0
041	Direct Available P2O5 (%)	0472	1.540	0.0000	1.633	0.3733	0.0233	5	-0.25	041.21	0
041	Direct Available P2O5 (%)	0354	1.720	0.0400	1.633	0.3733	0.0233	5	0.23	041.21	0
041	Direct Available P2O5 (%)	0421	1.790	0.0200	1.633	0.3733	0.0233	5	0.42	041.50	0
041	Direct Available P2O5 (%)	0568	2.060	0.0000	1.633	0.3733	0.0233	5	1.14	041.21	0
048	Water Soluble P2O5 (%)	0472	0.0100	0.0000				1		048.20	0
050	Soluble K2O (%)	0472	0.5400	0.0400	0.7657	0.0739	0.0178	9	-2.82	050.32	0
050	Soluble K2O (%)	0422	0.7295	0.0030	0.7657	0.0739	0.0178	9	-0.45	050.50	0
050	Soluble K2O (%)	0423	0.7360	0.0120	0.7657	0.0739	0.0178	9	-0.37	050.52	0
050	Soluble K2O (%)	0524	0.7364	0.0099	0.7657	0.0739	0.0178	9	-0.37	050.99	0
050	Soluble K2O (%)	0354	0.7385	0.0170	0.7657	0.0739	0.0178	9	-0.34	050.52	0
050	Soluble K2O (%)	0421	0.7900	0.0200	0.7657	0.0739	0.0178	9	0.30	050.99	0
050	Soluble K2O (%)	0588	0.8065	0.0310	0.7657	0.0739	0.0178	9	0.51	050.99	0
050	Soluble K2O (%)	0527	0.8231	0.0122	0.7657	0.0739	0.0178	9	0.72	050.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
050	Soluble K2O (%)	0568	0.9000	0.0000	0.7657	0.0739	0.0178	9	1.68	050.51	0
060	Water (Free) (%)	0510	2.938	0.0795				1		060.99	0
101	Acid Soluble Ca (9%)	0510	4.691†	0.3419	8.346	0.5079	0.1302	53	-7.20	101.70	0
101	Acid Soluble Ca (9%)	0515	7.294†	0.6260	8.346	0.5079	0.1302	53	-2.07	101.33	0
101	Acid Soluble Ca (9%)	0494	7.552†	0.3507	8.346	0.5079	0.1302	53	-1.56	101.33	0
101	Acid Soluble Ca (9%)	0102	7.590†	0.3400	8.346	0.5079	0.1302	53	-1.49	101.33	0
101	Acid Soluble Ca (9%)	0095	7.795	0.4300	8.346	0.5079	0.1302	53	-1.09	101.32	0
101	Acid Soluble Ca (9%)	0307	7.815	0.1900	8.346	0.5079	0.1302	53	-1.05	101.99	0
101	Acid Soluble Ca (9%)	0485	7.890	0.0000	8.346	0.5079	0.1302	53	-0.90	101.00	0
101	Acid Soluble Ca (9%)	0028	7.890	0.1400	8.346	0.5079	0.1302	53	-0.90	101.32	0
101	Acid Soluble Ca (9%)	0177	7.934	0.1360	8.346	0.5079	0.1302	53	-0.81	101.33	0
101	Acid Soluble Ca (9%)	0513	7.960	0.0600	8.346	0.5079	0.1302	53	-0.76	101.30	0
101	Acid Soluble Ca (9%)	0040	7.970	0.1800	8.346	0.5079	0.1302	53	-0.74	101.33	0
101	Acid Soluble Ca (9%)	0106	8.025	0.0625	8.346	0.5079	0.1302	53	-0.63	101.33	0
101	Acid Soluble Ca (9%)	0255	8.042	0.0150	8.346	0.5079	0.1302	53	-0.60	101.30	0
101	Acid Soluble Ca (9%)	0377	8.055	0.2100	8.346	0.5079	0.1302	53	-0.57	101.30	0
101	Acid Soluble Ca (9%)	0451	8.078	0.5590	8.346	0.5079	0.1302	53	-0.53	101.30	0
101	Acid Soluble Ca (9%)	0568	8.120	0.0000	8.346	0.5079	0.1302	53	-0.45	101.30	0
101	Acid Soluble Ca (9%)	0422	8.129	0.0240	8.346	0.5079	0.1302	53	-0.43	101.30	0
101	Acid Soluble Ca (9%)	0292	8.130	0.0200	8.346	0.5079	0.1302	53	-0.43	101.33	0
101	Acid Soluble Ca (9%)	0324	8.135	0.0900	8.346	0.5079	0.1302	53	-0.42	101.30	0
101	Acid Soluble Ca (9%)	0157	8.145	0.0900	8.346	0.5079	0.1302	53	-0.40	101.00	0
101	Acid Soluble Ca (9%)	0027	8.155	0.2300	8.346	0.5079	0.1302	53	-0.38	101.99	0
101	Acid Soluble Ca (9%)	0231	8.175	0.1900	8.346	0.5079	0.1302	53	-0.34	101.30	0
101	Acid Soluble Ca (9%)	0421	8.185	0.0710	8.346	0.5079	0.1302	53	-0.32	101.33	0
101	Acid Soluble Ca (9%)	0117	8.185	0.0256	8.346	0.5079	0.1302	53	-0.32	101.33	0
101	Acid Soluble Ca (9%)	0136	8.250	0.1000	8.346	0.5079	0.1302	53	-0.19	101.33	0
101	Acid Soluble Ca (9%)	0389	8.250	0.0400	8.346	0.5079	0.1302	53	-0.19	101.99	0
101	Acid Soluble Ca (9%)	0527	8.251	0.0768	8.346	0.5079	0.1302	53	-0.19	101.33	0
101	Acid Soluble Ca (9%)	0553	8.280	0.0400	8.346	0.5079	0.1302	53	-0.13	101.00	0
101	Acid Soluble Ca (9%)	0029	8.289	0.1850	8.346	0.5079	0.1302	53	-0.11	101.00	0
101	Acid Soluble Ca (9%)	0472	8.320	0.0000	8.346	0.5079	0.1302	53	-0.05	101.33	0
101	Acid Soluble Ca (9%)	0572	8.322	0.3194	8.346	0.5079	0.1302	53	-0.05	101.99	0
101	Acid Soluble Ca (9%)	0444	8.345	0.0900	8.346	0.5079	0.1302	53	0.00	101.30	0
101	Acid Soluble Ca (9%)	0523	8.405	0.1900	8.346	0.5079	0.1302	53	0.12	101.99	0
101	Acid Soluble Ca (9%)	0354	8.420	0.1400	8.346	0.5079	0.1302	53	0.15	101.30	0
101	Acid Soluble Ca (9%)	0423	8.440	0.0500	8.346	0.5079	0.1302	53	0.18	101.32	0
101	Acid Soluble Ca (9%)	0049	8.445	0.2500	8.346	0.5079	0.1302	53	0.19	101.30	0
101	Acid Soluble Ca (9%)	0561	8.480	0.0200	8.346	0.5079	0.1302	53	0.26	101.33	0
101	Acid Soluble Ca (9%)	0405	8.500	0.0800	8.346	0.5079	0.1302	53	0.30	101.32	0
101	Acid Soluble Ca (9%)	0055	8.508	0.1250	8.346	0.5079	0.1302	53	0.32	101.33	0
101	Acid Soluble Ca (9%)	0023	8.756	0.0410	8.346	0.5079	0.1302	53	0.81	101.99	0
101	Acid Soluble Ca (9%)	0402	8.771	0.0160	8.346	0.5079	0.1302	53	0.84	101.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
101	Acid Soluble Ca (9%)	0073	8.790	0.6200	8.346	0.5079	0.1302	53	0.87	101.00	0
101	Acid Soluble Ca (9%)	0234	8.900	0.1200	8.346	0.5079	0.1302	53	1.09	101.30	0
101	Acid Soluble Ca (9%)	0558	8.910	0.0103	8.346	0.5079	0.1302	53	1.11	101.99	0
101	Acid Soluble Ca (9%)	0291	8.935	0.0100	8.346	0.5079	0.1302	53	1.16	101.30	0
101	Acid Soluble Ca (9%)	0433	9.005‡	0.0100	8.346	0.5079	0.1302	53	1.30	101.30	0
101	Acid Soluble Ca (9%)	0035	9.025‡	0.0700	8.346	0.5079	0.1302	53	1.34	101.30	0
101	Acid Soluble Ca (9%)	0560	9.067‡	0.0110	8.346	0.5079	0.1302	53	1.42	101.99	0
101	Acid Soluble Ca (9%)	0619	9.105‡	0.2100	8.346	0.5079	0.1302	53	1.49	101.31	0
101	Acid Soluble Ca (9%)	0619	9.105‡	0.2100	8.346	0.5079	0.1302	53	1.49	101.99	0
101	Acid Soluble Ca (9%)	0521	9.155‡	0.0000	8.346	0.5079	0.1302	53	1.59	101.33	0
101	Acid Soluble Ca (9%)	0564	9.485‡	0.0700	8.346	0.5079	0.1302	53	2.24	101.99	0
101	Acid Soluble Ca (9%)	0537	9.865‡	0.0500	8.346	0.5079	0.1302	53	2.99	101.99	0
101	Acid Soluble Ca (9%)	0042	7.965	0.9900	8.346	0.5079	0.1302	53	-0.75	101.99	1
101	Acid Soluble Ca (9%)	0368	8.289	1.110	8.346	0.5079	0.1302	53	-0.11	101.99	1
121	Acid Soluble Mg (%)	0524	0.4678	0.0072	0.5273	0.0407	0.0123	12	-1.46	121.99	0
121	Acid Soluble Mg (%)	0472	0.4700	0.0000	0.5273	0.0407	0.0123	12	-1.41	121.33	0
121	Acid Soluble Mg (%)	0421	0.5040	0.0180	0.5273	0.0407	0.0123	12	-0.57	121.33	0
121	Acid Soluble Mg (%)	0423	0.5140	0.0020	0.5273	0.0407	0.0123	12	-0.33	121.32	0
121	Acid Soluble Mg (%)	0494	0.5237	0.0217	0.5273	0.0407	0.0123	12	-0.09	121.33	0
121	Acid Soluble Mg (%)	0307	0.5265	0.0170	0.5273	0.0407	0.0123	12	-0.02	121.99	0
121	Acid Soluble Mg (%)	0572	0.5287	0.0069	0.5273	0.0407	0.0123	12	0.03	121.99	0
121	Acid Soluble Mg (%)	0095	0.5400	0.0000	0.5273	0.0407	0.0123	12	0.31	121.32	0
121	Acid Soluble Mg (%)	0568	0.5440	0.0000	0.5273	0.0407	0.0123	12	0.41	121.30	0
121	Acid Soluble Mg (%)	0035	0.5475	0.0230	0.5273	0.0407	0.0123	12	0.50	121.30	0
121	Acid Soluble Mg (%)	0354	0.5750	0.0100	0.5273	0.0407	0.0123	12	1.17	121.30	0
121	Acid Soluble Mg (%)	0527	0.5863	0.0050	0.5273	0.0407	0.0123	12	1.45	121.33	0
121	Acid Soluble Mg (%)	0515	0.5148	0.0624	0.5273	0.0407	0.0123	12	-0.31	121.33	1
143	Elemental S (%)	0405	0.4285	0.0010	8.090	4.297	0.0100	5	-1.78	143.00	0
143	Elemental S (%)	0368	9.476	0.0110	8.090	4.297	0.0100	5	0.32	143.99	0
143	Elemental S (%)	0255	9.979	0.0180	8.090	4.297	0.0100	5	0.44	143.99	0
143	Elemental S (%)	0389	10.10	0.0000	8.090	4.297	0.0100	5	0.47	143.99	0
143	Elemental S (%)	0291	10.47	0.0100	8.090	4.297	0.0100	5	0.55	143.99	0
145	Sulfate S, HCl soluble (%)	0518	8.650	0.3000	9.324	0.4193	0.1394	14	-1.61	145.00	0
145	Sulfate S, HCl soluble (%)	0600	9.020	0.2400	9.324	0.4193	0.1394	14	-0.73	145.99	0
145	Sulfate S, HCl soluble (%)	0560	9.069	0.0270	9.324	0.4193	0.1394	14	-0.61	145.99	0
145	Sulfate S, HCl soluble (%)	0564	9.085	0.0700	9.324	0.4193	0.1394	14	-0.57	145.00	0
145	Sulfate S, HCl soluble (%)	0106	9.090	0.3600	9.324	0.4193	0.1394	14	-0.56	145.00	0
145	Sulfate S, HCl soluble (%)	0562	9.180	0.1400	9.324	0.4193	0.1394	14	-0.34	145.99	0
145	Sulfate S, HCl soluble (%)	0559	9.185	0.0100	9.324	0.4193	0.1394	14	-0.33	145.99	0
145	Sulfate S, HCl soluble (%)	0553	9.230	0.3800	9.324	0.4193	0.1394	14	-0.22	145.99	0
145	Sulfate S, HCl soluble (%)	0537	9.300	0.0400	9.324	0.4193	0.1394	14	-0.06	145.00	0
145	Sulfate S, HCl soluble (%)	0494	9.370	0.1000	9.324	0.4193	0.1394	14	0.11	145.00	0
145	Sulfate S, HCl soluble (%)	0444	9.680	0.0600	9.324	0.4193	0.1394	14	0.85	145.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
145	Sulfate S, HCl soluble (%)	0405	9.785	0.0100	9.324	0.4193	0.1394	14	1.10	145.00	0
145	Sulfate S, HCl soluble (%)	0619	9.895	0.1700	9.324	0.4193	0.1394	14	1.36	145.99	0
145	Sulfate S, HCl soluble (%)	0561	9.975	0.0900	9.324	0.4193	0.1394	14	1.55	145.00	0
145	Sulfate S, HCl soluble (%)	0136	10.03	0.7800	9.324	0.4193	0.1394	14	1.68	145.99	1
148	Total S (9%)	0558	8.241†	0.0111	10.08	0.4093	0.1510	33	-4.49	148.99	0
148	Total S (9%)	0564	9.140†	0.0200	10.08	0.4093	0.1510	33	-2.29	148.01	0
148	Total S (9%)	0549	9.160†	0.1000	10.08	0.4093	0.1510	33	-2.24	148.01	0
148	Total S (9%)	0324	9.690	0.0800	10.08	0.4093	0.1510	33	-0.95	148.01	0
148	Total S (9%)	0095	9.695	0.2300	10.08	0.4093	0.1510	33	-0.93	148.01	0
148	Total S (9%)	0136	9.745	0.4100	10.08	0.4093	0.1510	33	-0.81	148.00	0
148	Total S (9%)	0177	9.777	0.1535	10.08	0.4093	0.1510	33	-0.73	148.07	0
148	Total S (9%)	0485	9.815	0.0900	10.08	0.4093	0.1510	33	-0.64	148.01	0
148	Total S (9%)	0472	9.830	0.0400	10.08	0.4093	0.1510	33	-0.60	148.07	0
148	Total S (9%)	0029	9.845	0.3050	10.08	0.4093	0.1510	33	-0.57	148.00	0
148	Total S (9%)	0049	9.845	0.0700	10.08	0.4093	0.1510	33	-0.57	148.00	0
148	Total S (9%)	0117	9.846	0.1859	10.08	0.4093	0.1510	33	-0.57	148.07	0
148	Total S (9%)	0073	9.855	0.1300	10.08	0.4093	0.1510	33	-0.54	148.00	0
148	Total S (9%)	0025	9.983	0.1500	10.08	0.4093	0.1510	33	-0.23	148.00	0
148	Total S (9%)	0402	9.984	0.1390	10.08	0.4093	0.1510	33	-0.23	148.07	0
148	Total S (9%)	0405	10.00	0.0000	10.08	0.4093	0.1510	33	-0.19	148.00	0
148	Total S (9%)	0055	10.04	0.1150	10.08	0.4093	0.1510	33	-0.10	148.01	0
148	Total S (9%)	0377	10.10	0.2400	10.08	0.4093	0.1510	33	0.06	148.99	0
148	Total S (9%)	0572	10.18	0.4303	10.08	0.4093	0.1510	33	0.24	148.99	0
148	Total S (9%)	0292	10.19	0.0700	10.08	0.4093	0.1510	33	0.26	148.07	0
148	Total S (9%)	0040	10.20	0.0000	10.08	0.4093	0.1510	33	0.30	148.07	0
148	Total S (9%)	0405	10.21	0.0200	10.08	0.4093	0.1510	33	0.32	148.99	0
148	Total S (9%)	0102	10.26	0.2000	10.08	0.4093	0.1510	33	0.45	148.01	0
148	Total S (9%)	0619	10.30	0.0000	10.08	0.4093	0.1510	33	0.54	148.07	0
148	Total S (9%)	0619	10.30	0.0000	10.08	0.4093	0.1510	33	0.54	148.99	0
148	Total S (9%)	0354	10.35	0.1000	10.08	0.4093	0.1510	33	0.67	148.99	0
148	Total S (9%)	0422	10.43	0.0100	10.08	0.4093	0.1510	33	0.85	148.99	0
148	Total S (9%)	0494	10.48	0.3695	10.08	0.4093	0.1510	33	0.99	148.07	0
148	Total S (9%)	0451	10.55	0.3000	10.08	0.4093	0.1510	33	1.15	148.00	0
148	Total S (9%)	0523	10.60	0.0800	10.08	0.4093	0.1510	33	1.28	148.99	0
148	Total S (9%)	0513	10.82‡	0.0200	10.08	0.4093	0.1510	33	1.81	148.07	0
148	Total S (9%)	0527	11.17‡	0.1634	10.08	0.4093	0.1510	33	2.67	148.07	0
148	Total S (9%)	0421	14.95‡	0.5000	10.08	0.4093	0.1510	33	11.91	148.07	0
148	Total S (9%)	0515	8.384†	0.6970	10.08	0.4093	0.1510	33	-4.14	148.07	1
149	S - HNO3 soluble (%)	0524	9.785	0.0043	9.980	0.1611	0.1443	5	-1.21	149.04	0
149	S - HNO3 soluble (%)	0423	9.910	0.1630	9.980	0.1611	0.1443	5	-0.44	149.04	0
149	S - HNO3 soluble (%)	0023	9.935	0.0700	9.980	0.1611	0.1443	5	-0.28	149.99	0
149	S - HNO3 soluble (%)	0231	10.06	0.3400	9.980	0.1611	0.1443	5	0.50	149.04	0
149	S - HNO3 soluble (%)	0521	10.21	0.0000	9.980	0.1611	0.1443	5	1.42	149.04	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
151	Acid Soluble As (ppm)	0558	0.2868	0.0246	2.073	1.913	0.1466	9	-0.93	151.99	0
151	Acid Soluble As (ppm)	0086	0.9027	0.0877	2.073	1.913	0.1466	9	-0.61	151.32	0
151	Acid Soluble As (ppm)	0524	0.9267	0.0318	2.073	1.913	0.1466	9	-0.60	151.30	0
151	Acid Soluble As (ppm)	0572	0.9793	0.0232	2.073	1.913	0.1466	9	-0.57	151.99	0
151	Acid Soluble As (ppm)	0523	1.047	0.0050	2.073	1.913	0.1466	9	-0.54	151.30	0
151	Acid Soluble As (ppm)	0527	2.046	0.0414	2.073	1.913	0.1466	9	-0.01	151.33	0
151	Acid Soluble As (ppm)	0444	3.180	0.0000	2.073	1.913	0.1466	9	0.58	151.30	0
151	Acid Soluble As (ppm)	0368	4.350	0.7000	2.073	1.913	0.1466	9	1.19	151.34	0
151	Acid Soluble As (ppm)	0515	17.30	0.4600	2.073	1.913	0.1466	9	7.96	151.33	0
151	Acid Soluble As (ppm)	0405	7.000	2.000	2.073	1.913	0.1466	9	2.57	151.32	1
151	Acid Soluble As (ppm)	0255	0.0000	0.0000	2.073	1.913	0.1466	9		151.30	4
151	Acid Soluble As (ppm)	0515	< 0.186		2.073	1.913	0.1466	9		151.34	5
151	Acid Soluble As (ppm)	0136	< 1		2.073	1.913	0.1466	9		151.33	5
151	Acid Soluble As (ppm)	0605	< 6.2		2.073	1.913	0.1466	9		151.30	5
151	Acid Soluble As (ppm)	0117	< 10		2.073	1.913	0.1466	9		151.33	5
165	Acid Soluble B (1.5%)	0042	1.425†	0.0500	1.966	0.1499	0.0494	45	-3.61	165.99	0
165	Acid Soluble B (1.5%)	0558	1.519†	0.0130	1.966	0.1499	0.0494	45	-2.98	165.99	0
165	Acid Soluble B (1.5%)	0549	1.520†	0.0000	1.966	0.1499	0.0494	45	-2.97	165.00	0
165	Acid Soluble B (1.5%)	0537	1.595†	0.0300	1.966	0.1499	0.0494	45	-2.47	165.00	0
165	Acid Soluble B (1.5%)	0553	1.755	0.0300	1.966	0.1499	0.0494	45	-1.41	165.00	0
165	Acid Soluble B (1.5%)	0561	1.795	0.0100	1.966	0.1499	0.0494	45	-1.14	165.99	0
165	Acid Soluble B (1.5%)	0231	1.805	0.0900	1.966	0.1499	0.0494	45	-1.07	165.99	0
165	Acid Soluble B (1.5%)	0402	1.808	0.0303	1.966	0.1499	0.0494	45	-1.05	165.30	0
165	Acid Soluble B (1.5%)	0515	1.832	0.2210	1.966	0.1499	0.0494	45	-0.90	165.99	0
165	Acid Soluble B (1.5%)	0485	1.835	0.0700	1.966	0.1499	0.0494	45	-0.87	165.30	0
165	Acid Soluble B (1.5%)	0028	1.837	0.1080	1.966	0.1499	0.0494	45	-0.86	165.00	0
165	Acid Soluble B (1.5%)	0389	1.875	0.0100	1.966	0.1499	0.0494	45	-0.61	165.30	0
165	Acid Soluble B (1.5%)	0572	1.889	0.1301	1.966	0.1499	0.0494	45	-0.51	165.99	0
165	Acid Soluble B (1.5%)	0324	1.895	0.2100	1.966	0.1499	0.0494	45	-0.47	165.30	0
165	Acid Soluble B (1.5%)	0234	1.910	0.1200	1.966	0.1499	0.0494	45	-0.37	165.30	0
165	Acid Soluble B (1.5%)	0451	1.923	0.0800	1.966	0.1499	0.0494	45	-0.29	165.30	0
165	Acid Soluble B (1.5%)	0136	1.940	0.0000	1.966	0.1499	0.0494	45	-0.17	165.99	0
165	Acid Soluble B (1.5%)	0292	1.955	0.0100	1.966	0.1499	0.0494	45	-0.07	165.30	0
165	Acid Soluble B (1.5%)	0472	1.955	0.0100	1.966	0.1499	0.0494	45	-0.07	165.99	0
165	Acid Soluble B (1.5%)	0405	1.960	0.0400	1.966	0.1499	0.0494	45	-0.04	165.30	0
165	Acid Soluble B (1.5%)	0423	1.962	0.0280	1.966	0.1499	0.0494	45	-0.03	165.99	0
165	Acid Soluble B (1.5%)	0368	1.968	0.1487	1.966	0.1499	0.0494	45	0.01	165.99	0
165	Acid Soluble B (1.5%)	0040	1.975	0.0770	1.966	0.1499	0.0494	45	0.06	165.30	0
165	Acid Soluble B (1.5%)	0354	1.985	0.0500	1.966	0.1499	0.0494	45	0.13	165.30	0
165	Acid Soluble B (1.5%)	0073	1.990	0.0200	1.966	0.1499	0.0494	45	0.16	165.30	0
165	Acid Soluble B (1.5%)	0527	1.999	0.0279	1.966	0.1499	0.0494	45	0.22	165.99	0
165	Acid Soluble B (1.5%)	0377	2.000	0.0000	1.966	0.1499	0.0494	45	0.23	165.30	0
165	Acid Soluble B (1.5%)	0619	2.000	0.0000	1.966	0.1499	0.0494	45	0.23	165.30	0

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			Value	Range	Rob Mean	Rob SD	Rob R-bar				
165	Acid Soluble B (1.5%)	0619	2.000	0.0000	1.966	0.1499	0.0494	45	0.23	165.99	0
165	Acid Soluble B (1.5%)	0521	2.010	0.0000	1.966	0.1499	0.0494	45	0.29	165.99	0
165	Acid Soluble B (1.5%)	0049	2.032	0.0790	1.966	0.1499	0.0494	45	0.44	165.30	0
165	Acid Soluble B (1.5%)	0421	2.040	0.0600	1.966	0.1499	0.0494	45	0.49	165.99	0
165	Acid Soluble B (1.5%)	0291	2.045	0.0100	1.966	0.1499	0.0494	45	0.53	165.99	0
165	Acid Soluble B (1.5%)	0117	2.058	0.0485	1.966	0.1499	0.0494	45	0.61	165.99	0
165	Acid Soluble B (1.5%)	0422	2.066	0.0030	1.966	0.1499	0.0494	45	0.66	165.30	0
165	Acid Soluble B (1.5%)	0444	2.080	0.0200	1.966	0.1499	0.0494	45	0.76	165.30	0
165	Acid Soluble B (1.5%)	0106	2.086	0.1574	1.966	0.1499	0.0494	45	0.80	165.30	0
165	Acid Soluble B (1.5%)	0433	2.088	0.0010	1.966	0.1499	0.0494	45	0.81	165.30	0
165	Acid Soluble B (1.5%)	0559	2.115	0.0100	1.966	0.1499	0.0494	45	1.00	165.99	0
165	Acid Soluble B (1.5%)	0513	2.120	0.0400	1.966	0.1499	0.0494	45	1.03	165.30	0
165	Acid Soluble B (1.5%)	0605	2.160	0.0400	1.966	0.1499	0.0494	45	1.30	165.99	0
165	Acid Soluble B (1.5%)	0095	2.185	0.0100	1.966	0.1499	0.0494	45	1.46	165.99	0
165	Acid Soluble B (1.5%)	0524	2.186	0.0220	1.966	0.1499	0.0494	45	1.47	165.99	0
165	Acid Soluble B (1.5%)	0029	2.287‡	0.0640	1.966	0.1499	0.0494	45	2.14	165.00	0
165	Acid Soluble B (1.5%)	0255	2.671‡	0.0510	1.966	0.1499	0.0494	45	4.70	165.99	0
165	Acid Soluble B (1.5%)	0055	10.63‡	17.38	1.966	0.1499	0.0494	45	57.81	165.00	1
171	Water Soluble B (%)	0518	1.250	0.1000	1.726	0.3008	0.0669	9	-1.46	171.99	0
171	Water Soluble B (%)	0600	1.540	0.1200	1.726	0.3008	0.0669	9	-0.57	171.99	0
171	Water Soluble B (%)	0560	1.584	0.0050	1.726	0.3008	0.0669	9	-0.44	171.99	0
171	Water Soluble B (%)	0564	1.600	0.0400	1.726	0.3008	0.0669	9	-0.39	171.10	0
171	Water Soluble B (%)	0562	1.610	0.0800	1.726	0.3008	0.0669	9	-0.36	171.99	0
171	Water Soluble B (%)	0619	1.885	0.0100	1.726	0.3008	0.0669	9	0.49	171.99	0
171	Water Soluble B (%)	0027	1.984	0.1800	1.726	0.3008	0.0669	9	0.79	171.99	0
171	Water Soluble B (%)	0023	2.017	0.0100	1.726	0.3008	0.0669	9	0.89	171.99	0
171	Water Soluble B (%)	0513	2.040	0.0000	1.726	0.3008	0.0669	9	0.96	171.99	0
181	Acid Soluble Cd (ppm)	0444	1.035	0.0700	1.364	0.2589	0.0847	12	-1.27	181.30	0
181	Acid Soluble Cd (ppm)	0136	1.150	0.1000	1.364	0.2589	0.0847	12	-0.83	181.33	0
181	Acid Soluble Cd (ppm)	0368	1.200	0.0000	1.364	0.2589	0.0847	12	-0.64	181.34	0
181	Acid Soluble Cd (ppm)	0524	1.224	0.0216	1.364	0.2589	0.0847	12	-0.54	181.30	0
181	Acid Soluble Cd (ppm)	0527	1.259	0.0847	1.364	0.2589	0.0847	12	-0.41	181.33	0
181	Acid Soluble Cd (ppm)	0523	1.293	0.0090	1.364	0.2589	0.0847	12	-0.28	181.30	0
181	Acid Soluble Cd (ppm)	0572	1.300	0.0364	1.364	0.2589	0.0847	12	-0.25	181.99	0
181	Acid Soluble Cd (ppm)	0494	1.350	0.0800	1.364	0.2589	0.0847	12	-0.06	181.33	0
181	Acid Soluble Cd (ppm)	0405	1.500	1.000	1.364	0.2589	0.0847	12	0.52	181.32	0
181	Acid Soluble Cd (ppm)	0255	1.576	0.0540	1.364	0.2589	0.0847	12	0.82	181.30	0
181	Acid Soluble Cd (ppm)	0035	1.735	0.7100	1.364	0.2589	0.0847	12	1.43	181.30	0
181	Acid Soluble Cd (ppm)	0605	1.965	0.1100	1.364	0.2589	0.0847	12	2.32	181.30	0
181	Acid Soluble Cd (ppm)	0515	2.496	1.299	1.364	0.2589	0.0847	12	4.37	181.33	1
181	Acid Soluble Cd (ppm)	0515	< 0.133		1.364	0.2589	0.0847	12		181.34	5
181	Acid Soluble Cd (ppm)	0117	< 5		1.364	0.2589	0.0847	12		181.33	5
181	Acid Soluble Cd (ppm)	0558	< 7.5		1.364	0.2589	0.0847	12		181.99	5

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
191	Acid Soluble Cr (ppm)	0572	8.500	1.599	16.06	6.264	1.276	12	-1.21	191.99	0
191	Acid Soluble Cr (ppm)	0368	9.500	1.000	16.06	6.264	1.276	12	-1.05	191.34	0
191	Acid Soluble Cr (ppm)	0136	10.84	3.130	16.06	6.264	1.276	12	-0.83	191.33	0
191	Acid Soluble Cr (ppm)	0527	11.13	0.0409	16.06	6.264	1.276	12	-0.79	191.33	0
191	Acid Soluble Cr (ppm)	0524	12.10	0.2474	16.06	6.264	1.276	12	-0.63	191.30	0
191	Acid Soluble Cr (ppm)	0444	14.54	0.4300	16.06	6.264	1.276	12	-0.24	191.30	0
191	Acid Soluble Cr (ppm)	0605	18.13	1.810	16.06	6.264	1.276	12	0.33	191.30	0
191	Acid Soluble Cr (ppm)	0035	19.75	2.500	16.06	6.264	1.276	12	0.59	191.30	0
191	Acid Soluble Cr (ppm)	0558	20.63	0.0931	16.06	6.264	1.276	12	0.73	191.99	0
191	Acid Soluble Cr (ppm)	0405	21.50	1.000	16.06	6.264	1.276	12	0.87	191.32	0
191	Acid Soluble Cr (ppm)	0523	22.76	0.1680	16.06	6.264	1.276	12	1.07	191.30	0
191	Acid Soluble Cr (ppm)	0515	23.32	3.820	16.06	6.264	1.276	12	1.16	191.33	0
191	Acid Soluble Cr (ppm)	0515	50.54	76.74	16.06	6.264	1.276	12	5.50	191.34	1
202	Acid Soluble Co (ppm)	0255	6.788	4.054	12.88	2.558	0.7158	12	-2.38	202.99	0
202	Acid Soluble Co (ppm)	0368	10.60	0.2000	12.88	2.558	0.7158	12	-0.89	202.34	0
202	Acid Soluble Co (ppm)	0136	11.20	1.000	12.88	2.558	0.7158	12	-0.66	202.33	0
202	Acid Soluble Co (ppm)	0572	11.56	0.0592	12.88	2.558	0.7158	12	-0.52	202.99	0
202	Acid Soluble Co (ppm)	0524	12.23	0.0649	12.88	2.558	0.7158	12	-0.25	202.30	0
202	Acid Soluble Co (ppm)	0035	12.55	0.7000	12.88	2.558	0.7158	12	-0.13	202.30	0
202	Acid Soluble Co (ppm)	0527	12.62	0.0425	12.88	2.558	0.7158	12	-0.10	202.33	0
202	Acid Soluble Co (ppm)	0423	13.23	0.8700	12.88	2.558	0.7158	12	0.14	202.32	0
202	Acid Soluble Co (ppm)	0605	13.39	1.520	12.88	2.558	0.7158	12	0.20	202.30	0
202	Acid Soluble Co (ppm)	0515	15.56	0.6600	12.88	2.558	0.7158	12	1.05	202.33	0
202	Acid Soluble Co (ppm)	0405	16.00	0.0000	12.88	2.558	0.7158	12	1.22	202.32	0
202	Acid Soluble Co (ppm)	0523	16.56	1.045	12.88	2.558	0.7158	12	1.44	202.30	0
202	Acid Soluble Co (ppm)	0515	15.38	22.87	12.88	2.558	0.7158	12	0.98	202.34	1
221	Acid Soluble Cu (%)	0524	0.0848	0.0018	0.0961	0.0046	0.0020	21	-2.44	221.99	0
221	Acid Soluble Cu (%)	0368	0.0898	0.0051	0.0961	0.0046	0.0020	21	-1.37	221.99	0
221	Acid Soluble Cu (%)	0515	0.0902	0.0086	0.0961	0.0046	0.0020	21	-1.27	221.33	0
221	Acid Soluble Cu (%)	0558	0.0902	0.0008	0.0961	0.0046	0.0020	21	-1.27	221.99	0
221	Acid Soluble Cu (%)	0255	0.0920	0.0000	0.0961	0.0046	0.0020	21	-0.88	221.30	0
221	Acid Soluble Cu (%)	0028	0.0942	0.0002	0.0961	0.0046	0.0020	21	-0.41	221.32	0
221	Acid Soluble Cu (%)	0572	0.0947	0.0010	0.0961	0.0046	0.0020	21	-0.30	221.99	0
221	Acid Soluble Cu (%)	0035	0.0950	0.0000	0.0961	0.0046	0.0020	21	-0.23	221.30	0
221	Acid Soluble Cu (%)	0422	0.0950	0.0000	0.0961	0.0046	0.0020	21	-0.23	221.30	0
221	Acid Soluble Cu (%)	0405	0.0958	0.0009	0.0961	0.0046	0.0020	21	-0.07	221.32	0
221	Acid Soluble Cu (%)	0423	0.0960	0.0020	0.0961	0.0046	0.0020	21	-0.02	221.32	0
221	Acid Soluble Cu (%)	0523	0.0965	0.0010	0.0961	0.0046	0.0020	21	0.09	221.99	0
221	Acid Soluble Cu (%)	0106	0.0980	0.0036	0.0961	0.0046	0.0020	21	0.42	221.33	0
221	Acid Soluble Cu (%)	0494	0.0986	0.0028	0.0961	0.0046	0.0020	21	0.55	221.33	0
221	Acid Soluble Cu (%)	0527	0.0988	0.0006	0.0961	0.0046	0.0020	21	0.59	221.33	0
221	Acid Soluble Cu (%)	0521	0.0998	0.0000	0.0961	0.0046	0.0020	21	0.81	221.33	0
221	Acid Soluble Cu (%)	0234	0.1000	0.0000	0.0961	0.0046	0.0020	21	0.85	221.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
221	Acid Soluble Cu (%)	0354	0.1000	0.0000	0.0961	0.0046	0.0020	21	0.85	221.30	0
221	Acid Soluble Cu (%)	0472	0.1000	0.0000	0.0961	0.0046	0.0020	21	0.85	221.33	0
221	Acid Soluble Cu (%)	0402	0.1009	0.0020	0.0961	0.0046	0.0020	21	1.05	221.30	0
221	Acid Soluble Cu (%)	0095	0.1100	0.0000	0.0961	0.0046	0.0020	21	3.02	221.32	0
221	Acid Soluble Cu (%)	0515	0.0693	0.0571	0.0961	0.0046	0.0020	21	-5.81	221.99	1
221	Acid Soluble Cu (%)	0389	0.9950	0.0100	0.0961	0.0046	0.0020	21	194.81	221.99	2
241	Acid Soluble Fe (1%)	0042	1.015†	0.0300	1.348	0.0890	0.0297	56	-3.74	241.99	0
241	Acid Soluble Fe (1%)	0537	1.070†	0.0600	1.348	0.0890	0.0297	56	-3.12	241.00	0
241	Acid Soluble Fe (1%)	0521	1.149†	0.0000	1.348	0.0890	0.0297	56	-2.24	241.33	0
241	Acid Soluble Fe (1%)	0055	1.197†	0.1770	1.348	0.0890	0.0297	56	-1.70	241.33	0
241	Acid Soluble Fe (1%)	0177	1.198†	0.0348	1.348	0.0890	0.0297	56	-1.68	241.33	0
241	Acid Soluble Fe (1%)	0049	1.220	0.0680	1.348	0.0890	0.0297	56	-1.44	241.30	0
241	Acid Soluble Fe (1%)	0402	1.224	0.0064	1.348	0.0890	0.0297	56	-1.39	241.30	0
241	Acid Soluble Fe (1%)	0559	1.225	0.0100	1.348	0.0890	0.0297	56	-1.38	241.99	0
241	Acid Soluble Fe (1%)	0405	1.280	0.0000	1.348	0.0890	0.0297	56	-0.76	241.32	0
241	Acid Soluble Fe (1%)	0558	1.281	0.0067	1.348	0.0890	0.0297	56	-0.75	241.99	0
241	Acid Soluble Fe (1%)	0095	1.285	0.0700	1.348	0.0890	0.0297	56	-0.71	241.32	0
241	Acid Soluble Fe (1%)	0515	1.286	0.1510	1.348	0.0890	0.0297	56	-0.70	241.33	0
241	Acid Soluble Fe (1%)	0040	1.290	0.0400	1.348	0.0890	0.0297	56	-0.65	241.33	0
241	Acid Soluble Fe (1%)	0472	1.295	0.0100	1.348	0.0890	0.0297	56	-0.60	241.33	0
241	Acid Soluble Fe (1%)	0234	1.300	0.0200	1.348	0.0890	0.0297	56	-0.54	241.30	0
241	Acid Soluble Fe (1%)	0136	1.310	0.0400	1.348	0.0890	0.0297	56	-0.43	241.33	0
241	Acid Soluble Fe (1%)	0553	1.315	0.0100	1.348	0.0890	0.0297	56	-0.37	241.00	0
241	Acid Soluble Fe (1%)	0389	1.315	0.0100	1.348	0.0890	0.0297	56	-0.37	241.99	0
241	Acid Soluble Fe (1%)	0433	1.320	0.0200	1.348	0.0890	0.0297	56	-0.31	241.30	0
241	Acid Soluble Fe (1%)	0255	1.322	0.0010	1.348	0.0890	0.0297	56	-0.30	241.30	0
241	Acid Soluble Fe (1%)	0028	1.325	0.0100	1.348	0.0890	0.0297	56	-0.26	241.32	0
241	Acid Soluble Fe (1%)	0605	1.330	0.0400	1.348	0.0890	0.0297	56	-0.20	241.99	0
241	Acid Soluble Fe (1%)	0423	1.332	0.0160	1.348	0.0890	0.0297	56	-0.18	241.32	0
241	Acid Soluble Fe (1%)	0485	1.335	0.0700	1.348	0.0890	0.0297	56	-0.15	241.00	0
241	Acid Soluble Fe (1%)	0157	1.335	0.0900	1.348	0.0890	0.0297	56	-0.15	241.30	0
241	Acid Soluble Fe (1%)	0619	1.335	0.0100	1.348	0.0890	0.0297	56	-0.15	241.31	0
241	Acid Soluble Fe (1%)	0292	1.335	0.0100	1.348	0.0890	0.0297	56	-0.15	241.32	0
241	Acid Soluble Fe (1%)	0106	1.341	0.0106	1.348	0.0890	0.0297	56	-0.08	241.33	0
241	Acid Soluble Fe (1%)	0572	1.343	0.0053	1.348	0.0890	0.0297	56	-0.06	241.99	0
241	Acid Soluble Fe (1%)	0377	1.345	0.0500	1.348	0.0890	0.0297	56	-0.03	241.30	0
241	Acid Soluble Fe (1%)	0619	1.345	0.0100	1.348	0.0890	0.0297	56	-0.03	241.99	0
241	Acid Soluble Fe (1%)	0073	1.350	0.0000	1.348	0.0890	0.0297	56	0.02	241.32	0
241	Acid Soluble Fe (1%)	0422	1.354	0.0210	1.348	0.0890	0.0297	56	0.06	241.30	0
241	Acid Soluble Fe (1%)	0494	1.357	0.0149	1.348	0.0890	0.0297	56	0.10	241.33	0
241	Acid Soluble Fe (1%)	0324	1.360	0.0200	1.348	0.0890	0.0297	56	0.13	241.30	0
241	Acid Soluble Fe (1%)	0035	1.370	0.0800	1.348	0.0890	0.0297	56	0.25	241.30	0
241	Acid Soluble Fe (1%)	0561	1.375	0.0500	1.348	0.0890	0.0297	56	0.30	241.33	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
241	Acid Soluble Fe (1%)	0523	1.383	0.0340	1.348	0.0890	0.0297	56	0.39	241.99	0
241	Acid Soluble Fe (1%)	0117	1.390	0.0035	1.348	0.0890	0.0297	56	0.48	241.33	0
241	Acid Soluble Fe (1%)	0354	1.400	0.0200	1.348	0.0890	0.0297	56	0.58	241.30	0
241	Acid Soluble Fe (1%)	0102	1.400	0.0800	1.348	0.0890	0.0297	56	0.58	241.33	0
241	Acid Soluble Fe (1%)	0513	1.405	0.0100	1.348	0.0890	0.0297	56	0.64	241.30	0
241	Acid Soluble Fe (1%)	0527	1.407	0.0128	1.348	0.0890	0.0297	56	0.66	241.33	0
241	Acid Soluble Fe (1%)	0231	1.415	0.0100	1.348	0.0890	0.0297	56	0.75	241.30	0
241	Acid Soluble Fe (1%)	0451	1.420	0.1160	1.348	0.0890	0.0297	56	0.81	241.30	0
241	Acid Soluble Fe (1%)	0562	1.425	0.1500	1.348	0.0890	0.0297	56	0.86	241.99	0
241	Acid Soluble Fe (1%)	0027	1.427	0.0520	1.348	0.0890	0.0297	56	0.89	241.99	0
241	Acid Soluble Fe (1%)	0291	1.435	0.0100	1.348	0.0890	0.0297	56	0.98	241.30	0
241	Acid Soluble Fe (1%)	0023	1.447	0.0010	1.348	0.0890	0.0297	56	1.11	241.99	0
241	Acid Soluble Fe (1%)	0444	1.450	0.0000	1.348	0.0890	0.0297	56	1.15	241.30	0
241	Acid Soluble Fe (1%)	0029	1.472	0.0280	1.348	0.0890	0.0297	56	1.39	241.00	0
241	Acid Soluble Fe (1%)	0368	1.507‡	0.0018	1.348	0.0890	0.0297	56	1.79	241.99	0
241	Acid Soluble Fe (1%)	0560	1.511‡	0.0030	1.348	0.0890	0.0297	56	1.82	241.99	0
241	Acid Soluble Fe (1%)	0600	1.520‡	0.0400	1.348	0.0890	0.0297	56	1.93	241.99	0
241	Acid Soluble Fe (1%)	0564	1.525‡	0.0300	1.348	0.0890	0.0297	56	1.99	241.99	0
241	Acid Soluble Fe (1%)	0524	1.562‡	0.0103	1.348	0.0890	0.0297	56	2.40	241.99	0
241	Acid Soluble Fe (1%)	0515	1.490‡	0.3310	1.348	0.0890	0.0297	56	1.59	241.99	1
251	Acid Soluble Pb (ppm)	0523	2.308	0.0140	5.350	2.961	0.8174	10	-1.03	251.30	0
251	Acid Soluble Pb (ppm)	0572	2.318	0.0339	5.350	2.961	0.8174	10	-1.02	251.99	0
251	Acid Soluble Pb (ppm)	0524	3.679	0.3839	5.350	2.961	0.8174	10	-0.56	251.30	0
251	Acid Soluble Pb (ppm)	0515	3.928	2.873	5.350	2.961	0.8174	10	-0.48	251.34	0
251	Acid Soluble Pb (ppm)	0368	3.950	0.7000	5.350	2.961	0.8174	10	-0.47	251.34	0
251	Acid Soluble Pb (ppm)	0515	5.057	2.065	5.350	2.961	0.8174	10	-0.10	251.33	0
251	Acid Soluble Pb (ppm)	0494	6.020	0.1400	5.350	2.961	0.8174	10	0.23	251.33	0
251	Acid Soluble Pb (ppm)	0035	8.215	1.470	5.350	2.961	0.8174	10	0.97	251.30	0
251	Acid Soluble Pb (ppm)	0405	8.500	1.000	5.350	2.961	0.8174	10	1.06	251.32	0
251	Acid Soluble Pb (ppm)	0527	9.528	0.0969	5.350	2.961	0.8174	10	1.41	251.33	0
251	Acid Soluble Pb (ppm)	0255	0.0000	0.0000	5.350	2.961	0.8174	10		251.30	4
251	Acid Soluble Pb (ppm)	0136	< 3		5.350	2.961	0.8174	10		251.33	5
251	Acid Soluble Pb (ppm)	0605	< 5		5.350	2.961	0.8174	10		251.30	5
251	Acid Soluble Pb (ppm)	0117	< 5		5.350	2.961	0.8174	10		251.33	5
251	Acid Soluble Pb (ppm)	0558	< 12.5		5.350	2.961	0.8174	10		251.99	5
261	Acid Soluble Mn (1.5%)	0558	1.460†	0.0025	1.895	0.1420	0.0441	56	-3.06	261.99	0
261	Acid Soluble Mn (1.5%)	0042	1.515†	0.0300	1.895	0.1420	0.0441	56	-2.68	261.99	0
261	Acid Soluble Mn (1.5%)	0040	1.567†	0.1200	1.895	0.1420	0.0441	56	-2.31	261.35	0
261	Acid Soluble Mn (1.5%)	0537	1.585†	0.0700	1.895	0.1420	0.0441	56	-2.18	261.12	0
261	Acid Soluble Mn (1.5%)	0559	1.605†	0.0100	1.895	0.1420	0.0441	56	-2.04	261.99	0
261	Acid Soluble Mn (1.5%)	0234	1.740	0.0400	1.895	0.1420	0.0441	56	-1.09	261.30	0
261	Acid Soluble Mn (1.5%)	0600	1.740	0.0800	1.895	0.1420	0.0441	56	-1.09	261.99	0
261	Acid Soluble Mn (1.5%)	0515	1.744	0.1880	1.895	0.1420	0.0441	56	-1.06	261.35	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
261	Acid Soluble Mn (1.5%)	0055	1.750	0.2200	1.895	0.1420	0.0441	56	-1.02	261.35	0
261	Acid Soluble Mn (1.5%)	0402	1.753	0.0130	1.895	0.1420	0.0441	56	-1.00	261.32	0
261	Acid Soluble Mn (1.5%)	0560	1.757	0.0310	1.895	0.1420	0.0441	56	-0.97	261.99	0
261	Acid Soluble Mn (1.5%)	0095	1.780	0.1200	1.895	0.1420	0.0441	56	-0.81	261.34	0
261	Acid Soluble Mn (1.5%)	0368	1.783	0.0093	1.895	0.1420	0.0441	56	-0.79	261.99	0
261	Acid Soluble Mn (1.5%)	0564	1.790	0.0200	1.895	0.1420	0.0441	56	-0.74	261.99	0
261	Acid Soluble Mn (1.5%)	0433	1.805	0.0100	1.895	0.1420	0.0441	56	-0.63	261.30	0
261	Acid Soluble Mn (1.5%)	0177	1.815	0.0067	1.895	0.1420	0.0441	56	-0.57	261.35	0
261	Acid Soluble Mn (1.5%)	0494	1.817	0.0050	1.895	0.1420	0.0441	56	-0.55	261.35	0
261	Acid Soluble Mn (1.5%)	0028	1.820	0.0000	1.895	0.1420	0.0441	56	-0.53	261.34	0
261	Acid Soluble Mn (1.5%)	0324	1.830	0.0800	1.895	0.1420	0.0441	56	-0.46	261.31	0
261	Acid Soluble Mn (1.5%)	0561	1.830	0.0200	1.895	0.1420	0.0441	56	-0.46	261.35	0
261	Acid Soluble Mn (1.5%)	0423	1.839	0.0110	1.895	0.1420	0.0441	56	-0.40	261.34	0
261	Acid Soluble Mn (1.5%)	0562	1.840	0.1200	1.895	0.1420	0.0441	56	-0.39	261.99	0
261	Acid Soluble Mn (1.5%)	0389	1.855	0.0500	1.895	0.1420	0.0441	56	-0.28	261.99	0
261	Acid Soluble Mn (1.5%)	0157	1.870	0.0600	1.895	0.1420	0.0441	56	-0.18	261.30	0
261	Acid Soluble Mn (1.5%)	0619	1.875	0.0300	1.895	0.1420	0.0441	56	-0.14	261.33	0
261	Acid Soluble Mn (1.5%)	0619	1.875	0.0300	1.895	0.1420	0.0441	56	-0.14	261.99	0
261	Acid Soluble Mn (1.5%)	0485	1.880	0.0400	1.895	0.1420	0.0441	56	-0.11	261.12	0
261	Acid Soluble Mn (1.5%)	0523	1.900	0.0210	1.895	0.1420	0.0441	56	0.03	261.99	0
261	Acid Soluble Mn (1.5%)	0405	1.900	0.0600	1.895	0.1420	0.0441	56	0.04	261.32	0
261	Acid Soluble Mn (1.5%)	0073	1.910	0.0200	1.895	0.1420	0.0441	56	0.11	261.34	0
261	Acid Soluble Mn (1.5%)	0117	1.913	0.0419	1.895	0.1420	0.0441	56	0.13	261.35	0
261	Acid Soluble Mn (1.5%)	0255	1.916	0.0070	1.895	0.1420	0.0441	56	0.14	261.99	0
261	Acid Soluble Mn (1.5%)	0527	1.927	0.0106	1.895	0.1420	0.0441	56	0.22	261.35	0
261	Acid Soluble Mn (1.5%)	0106	1.934	0.0037	1.895	0.1420	0.0441	56	0.28	261.35	0
261	Acid Soluble Mn (1.5%)	0422	1.957	0.0130	1.895	0.1420	0.0441	56	0.43	261.30	0
261	Acid Soluble Mn (1.5%)	0291	1.965	0.0100	1.895	0.1420	0.0441	56	0.49	261.30	0
261	Acid Soluble Mn (1.5%)	0102	1.965	0.0900	1.895	0.1420	0.0441	56	0.49	261.35	0
261	Acid Soluble Mn (1.5%)	0049	1.966	0.2090	1.895	0.1420	0.0441	56	0.50	261.32	0
261	Acid Soluble Mn (1.5%)	0444	1.970	0.0000	1.895	0.1420	0.0441	56	0.53	261.30	0
261	Acid Soluble Mn (1.5%)	0572	1.973	0.0653	1.895	0.1420	0.0441	56	0.55	261.99	0
261	Acid Soluble Mn (1.5%)	0472	1.975	0.0100	1.895	0.1420	0.0441	56	0.56	261.35	0
261	Acid Soluble Mn (1.5%)	0136	1.995	0.0300	1.895	0.1420	0.0441	56	0.70	261.35	0
261	Acid Soluble Mn (1.5%)	0354	1.995	0.0500	1.895	0.1420	0.0441	56	0.70	261.30	0
261	Acid Soluble Mn (1.5%)	0553	2.005	0.0500	1.895	0.1420	0.0441	56	0.78	261.00	0
261	Acid Soluble Mn (1.5%)	0023	2.014	0.0170	1.895	0.1420	0.0441	56	0.84	261.99	0
261	Acid Soluble Mn (1.5%)	0027	2.029	0.0630	1.895	0.1420	0.0441	56	0.94	261.99	0
261	Acid Soluble Mn (1.5%)	0231	2.035	0.0100	1.895	0.1420	0.0441	56	0.99	261.32	0
261	Acid Soluble Mn (1.5%)	0029	2.039	0.0160	1.895	0.1420	0.0441	56	1.01	261.12	0
261	Acid Soluble Mn (1.5%)	0035	2.050	0.1800	1.895	0.1420	0.0441	56	1.09	261.30	0
261	Acid Soluble Mn (1.5%)	0377	2.050	0.1600	1.895	0.1420	0.0441	56	1.09	261.32	0
261	Acid Soluble Mn (1.5%)	0451	2.051	0.1090	1.895	0.1420	0.0441	56	1.10	261.32	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
261	Acid Soluble Mn (1.5%)	0513	2.080	0.0000	1.895	0.1420	0.0441	56	1.30	261.32	0
261	Acid Soluble Mn (1.5%)	0605	2.085	0.0500	1.895	0.1420	0.0441	56	1.34	261.99	0
261	Acid Soluble Mn (1.5%)	0524	2.150‡	0.0107	1.895	0.1420	0.0441	56	1.80	261.99	0
261	Acid Soluble Mn (1.5%)	0521	2.165‡	0.0000	1.895	0.1420	0.0441	56	1.90	261.35	0
261	Acid Soluble Mn (1.5%)	0292	2.550‡	0.0000	1.895	0.1420	0.0441	56	4.61	261.14	0
261	Acid Soluble Mn (1.5%)	0515	2.017	0.5700	1.895	0.1420	0.0441	56	0.86	261.99	1
271	Water Soluble Mn (%)	0619	1.435	0.0300	1.500	0.1126	0.0267	3	-0.58	271.30	0
271	Water Soluble Mn (%)	0619	1.435	0.0300	1.500	0.1126	0.0267	3	-0.58	271.99	0
271	Water Soluble Mn (%)	0513	1.630	0.0200	1.500	0.1126	0.0267	3	1.15	271.99	0
281	Acid Soluble Hg (ppm)	0524	0.0889	0.0010	0.1401	0.0413	0.0014	5	-1.08	281.99	0
281	Acid Soluble Hg (ppm)	0572	0.1102	0.0011	0.1401	0.0413	0.0014	5	-0.63	281.99	0
281	Acid Soluble Hg (ppm)	0035	0.1425	0.0010	0.1401	0.0413	0.0014	5	0.05	281.99	0
281	Acid Soluble Hg (ppm)	0444	0.1700	0.0000	0.1401	0.0413	0.0014	5	0.63	281.30	0
281	Acid Soluble Hg (ppm)	0558	0.1890	0.0026	0.1401	0.0413	0.0014	5	1.03	281.00	0
281	Acid Soluble Hg (ppm)	0086	0.1109	0.0101	0.1401	0.0413	0.0014	5	-0.62	281.99	1
281	Acid Soluble Hg (ppm)	0527	< 0.001		0.1401	0.0413	0.0014	5		281.30	5
281	Acid Soluble Hg (ppm)	0515	< 0.1		0.1401	0.0413	0.0014	5		281.30	5
281	Acid Soluble Hg (ppm)	0605	< 1.25		0.1401	0.0413	0.0014	5		281.30	5
281	Acid Soluble Hg (ppm)	0405	< 2		0.1401	0.0413	0.0014	5		281.30	5
289	Acid Soluble Mo (ppm)	0523	0.8280	0.6440	6.029	2.953	0.3854	12	-1.76	289.30	0
289	Acid Soluble Mo (ppm)	0234	2.500	1.000	6.029	2.953	0.3854	12	-1.20	289.30	0
289	Acid Soluble Mo (ppm)	0524	2.690	0.0991	6.029	2.953	0.3854	12	-1.13	289.30	0
289	Acid Soluble Mo (ppm)	0255	5.783	1.850	6.029	2.953	0.3854	12	-0.08	289.30	0
289	Acid Soluble Mo (ppm)	0106	6.000	0.0000	6.029	2.953	0.3854	12	-0.01	289.33	0
289	Acid Soluble Mo (ppm)	0572	6.337	0.1538	6.029	2.953	0.3854	12	0.10	289.99	0
289	Acid Soluble Mo (ppm)	0136	6.550	0.1000	6.029	2.953	0.3854	12	0.18	289.33	0
289	Acid Soluble Mo (ppm)	0527	6.971	0.2847	6.029	2.953	0.3854	12	0.32	289.33	0
289	Acid Soluble Mo (ppm)	0368	7.100	0.2000	6.029	2.953	0.3854	12	0.36	289.34	0
289	Acid Soluble Mo (ppm)	0405	8.000	0.0000	6.029	2.953	0.3854	12	0.67	289.32	0
289	Acid Soluble Mo (ppm)	0035	8.360	0.3200	6.029	2.953	0.3854	12	0.79	289.30	0
289	Acid Soluble Mo (ppm)	0423	13.74	0.0400	6.029	2.953	0.3854	12	2.61	289.33	0
289	Acid Soluble Mo (ppm)	0515	7.847	2.435	6.029	2.953	0.3854	12	0.62	289.33	1
289	Acid Soluble Mo (ppm)	0515	< 0.178		6.029	2.953	0.3854	12		289.34	5
289	Acid Soluble Mo (ppm)	0402	< 5		6.029	2.953	0.3854	12		289.30	5
291	Acid Soluble Ni (ppm)	0444	12.15	0.2800	16.93	3.654	0.9018	15	-1.31	291.30	0
291	Acid Soluble Ni (ppm)	0572	12.90	1.171	16.93	3.654	0.9018	15	-1.10	291.99	0
291	Acid Soluble Ni (ppm)	0136	14.05	2.100	16.93	3.654	0.9018	15	-0.79	291.33	0
291	Acid Soluble Ni (ppm)	0368	14.15	0.5000	16.93	3.654	0.9018	15	-0.76	291.34	0
291	Acid Soluble Ni (ppm)	0527	14.45	0.2983	16.93	3.654	0.9018	15	-0.68	291.33	0
291	Acid Soluble Ni (ppm)	0524	15.39	0.1620	16.93	3.654	0.9018	15	-0.42	291.30	0
291	Acid Soluble Ni (ppm)	0605	16.07	0.1800	16.93	3.654	0.9018	15	-0.23	291.30	0
291	Acid Soluble Ni (ppm)	0558	16.24	0.0250	16.93	3.654	0.9018	15	-0.19	291.99	0
291	Acid Soluble Ni (ppm)	0035	16.80	0.8000	16.93	3.654	0.9018	15	-0.03	291.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
291	Acid Soluble Ni (ppm)	0494	18.70	1.800	16.93	3.654	0.9018	15	0.49	291.33	0
291	Acid Soluble Ni (ppm)	0523	18.94	0.0290	16.93	3.654	0.9018	15	0.55	291.30	0
291	Acid Soluble Ni (ppm)	0405	19.00	0.0000	16.93	3.654	0.9018	15	0.57	291.32	0
291	Acid Soluble Ni (ppm)	0117	21.03	0.3330	16.93	3.654	0.9018	15	1.12	291.33	0
291	Acid Soluble Ni (ppm)	0515	21.64	3.300	16.93	3.654	0.9018	15	1.29	291.33	0
291	Acid Soluble Ni (ppm)	0255	26.03	3.630	16.93	3.654	0.9018	15	2.49	291.99	0
291	Acid Soluble Ni (ppm)	0515	35.07	53.27	16.93	3.654	0.9018	15	4.96	291.34	1
301	Acid Soluble Se (ppm)	0572	1.971	0.0563	5.997	4.942	1.515	9	-0.81	301.99	0
301	Acid Soluble Se (ppm)	0086	2.011	0.0488	5.997	4.942	1.515	9	-0.81	301.32	0
301	Acid Soluble Se (ppm)	0523	2.151	0.1030	5.997	4.942	1.515	9	-0.78	301.30	0
301	Acid Soluble Se (ppm)	0524	2.516	0.0547	5.997	4.942	1.515	9	-0.70	301.30	0
301	Acid Soluble Se (ppm)	0515	4.484	6.829	5.997	4.942	1.515	9	-0.31	301.34	0
301	Acid Soluble Se (ppm)	0515	7.244	1.440	5.997	4.942	1.515	9	0.25	301.33	0
301	Acid Soluble Se (ppm)	0255	9.533	5.594	5.997	4.942	1.515	9	0.72	301.99	0
301	Acid Soluble Se (ppm)	0494	10.65	1.100	5.997	4.942	1.515	9	0.94	301.33	0
301	Acid Soluble Se (ppm)	0405	17.50	1.000	5.997	4.942	1.515	9	2.33	301.32	0
301	Acid Soluble Se (ppm)	0527	< 0.01		5.997	4.942	1.515	9		301.33	5
301	Acid Soluble Se (ppm)	0368	< 1.3		5.997	4.942	1.515	9		301.34	5
301	Acid Soluble Se (ppm)	0605	< 1.65		5.997	4.942	1.515	9		301.30	5
311	Sodium (%)	0494	2.277	0.0102	2.419	0.1151	0.0232	6	-1.10	311.33	0
311	Sodium (%)	0035	2.390	0.0400	2.419	0.1151	0.0232	6	-0.23	311.33	0
311	Sodium (%)	0423	2.393	0.0190	2.419	0.1151	0.0232	6	-0.21	311.33	0
311	Sodium (%)	0572	2.420	0.0172	2.419	0.1151	0.0232	6	0.01	311.99	0
311	Sodium (%)	0354	2.445	0.0500	2.419	0.1151	0.0232	6	0.20	311.99	0
311	Sodium (%)	0527	2.590	0.0028	2.419	0.1151	0.0232	6	1.32	311.33	0
321	Acid Soluble Zn (2%)	0537	2.305†	0.0100	2.801	0.2050	0.0477	55	-2.42	321.00	0
321	Acid Soluble Zn (2%)	0042	2.375†	0.1300	2.801	0.2050	0.0477	55	-2.08	321.99	0
321	Acid Soluble Zn (2%)	0559	2.385†	0.0100	2.801	0.2050	0.0477	55	-2.03	321.99	0
321	Acid Soluble Zn (2%)	0177	2.488†	0.0477	2.801	0.2050	0.0477	55	-1.53	321.33	0
321	Acid Soluble Zn (2%)	0402	2.547	0.0347	2.801	0.2050	0.0477	55	-1.24	321.30	0
321	Acid Soluble Zn (2%)	0560	2.562	0.0390	2.801	0.2050	0.0477	55	-1.17	321.99	0
321	Acid Soluble Zn (2%)	0324	2.590	0.1800	2.801	0.2050	0.0477	55	-1.03	321.30	0
321	Acid Soluble Zn (2%)	0564	2.600	0.0200	2.801	0.2050	0.0477	55	-0.98	321.99	0
321	Acid Soluble Zn (2%)	0485	2.610	0.0400	2.801	0.2050	0.0477	55	-0.93	321.00	0
321	Acid Soluble Zn (2%)	0405	2.625	0.0100	2.801	0.2050	0.0477	55	-0.86	321.32	0
321	Acid Soluble Zn (2%)	0562	2.640	0.1800	2.801	0.2050	0.0477	55	-0.79	321.99	0
321	Acid Soluble Zn (2%)	0255	2.661	0.0080	2.801	0.2050	0.0477	55	-0.68	321.30	0
321	Acid Soluble Zn (2%)	0600	2.670	0.1400	2.801	0.2050	0.0477	55	-0.64	321.99	0
321	Acid Soluble Zn (2%)	0561	2.675	0.0300	2.801	0.2050	0.0477	55	-0.62	321.33	0
321	Acid Soluble Zn (2%)	0095	2.690	0.1800	2.801	0.2050	0.0477	55	-0.54	321.32	0
321	Acid Soluble Zn (2%)	0433	2.695	0.0500	2.801	0.2050	0.0477	55	-0.52	321.30	0
321	Acid Soluble Zn (2%)	0368	2.698	0.0416	2.801	0.2050	0.0477	55	-0.51	321.99	0
321	Acid Soluble Zn (2%)	0515	2.700	0.1610	2.801	0.2050	0.0477	55	-0.50	321.33	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
321	Acid Soluble Zn (2%)	0136	2.705	0.0500	2.801	0.2050	0.0477	55	-0.47	321.33	0
321	Acid Soluble Zn (2%)	0292	2.710	0.0000	2.801	0.2050	0.0477	55	-0.45	321.30	0
321	Acid Soluble Zn (2%)	0619	2.715	0.0100	2.801	0.2050	0.0477	55	-0.42	321.31	0
321	Acid Soluble Zn (2%)	0619	2.715	0.0100	2.801	0.2050	0.0477	55	-0.42	321.99	0
321	Acid Soluble Zn (2%)	0527	2.731	0.0002	2.801	0.2050	0.0477	55	-0.34	321.33	0
321	Acid Soluble Zn (2%)	0444	2.735	0.0100	2.801	0.2050	0.0477	55	-0.32	321.30	0
321	Acid Soluble Zn (2%)	0040	2.736	0.0030	2.801	0.2050	0.0477	55	-0.32	321.33	0
321	Acid Soluble Zn (2%)	0073	2.750	0.0400	2.801	0.2050	0.0477	55	-0.25	321.32	0
321	Acid Soluble Zn (2%)	0389	2.765	0.0100	2.801	0.2050	0.0477	55	-0.18	321.99	0
321	Acid Soluble Zn (2%)	0472	2.770	0.0000	2.801	0.2050	0.0477	55	-0.15	321.33	0
321	Acid Soluble Zn (2%)	0157	2.800	0.0200	2.801	0.2050	0.0477	55	-0.01	321.30	0
321	Acid Soluble Zn (2%)	0354	2.805	0.0500	2.801	0.2050	0.0477	55	0.02	321.30	0
321	Acid Soluble Zn (2%)	0423	2.826	0.0080	2.801	0.2050	0.0477	55	0.12	321.32	0
321	Acid Soluble Zn (2%)	0234	2.830	0.0400	2.801	0.2050	0.0477	55	0.14	321.30	0
321	Acid Soluble Zn (2%)	0523	2.835	0.0030	2.801	0.2050	0.0477	55	0.16	321.99	0
321	Acid Soluble Zn (2%)	0102	2.860	0.1400	2.801	0.2050	0.0477	55	0.29	321.33	0
321	Acid Soluble Zn (2%)	0558	2.869	0.0189	2.801	0.2050	0.0477	55	0.33	321.99	0
321	Acid Soluble Zn (2%)	0028	2.870	0.0800	2.801	0.2050	0.0477	55	0.33	321.32	0
321	Acid Soluble Zn (2%)	0494	2.882	0.0687	2.801	0.2050	0.0477	55	0.39	321.33	0
321	Acid Soluble Zn (2%)	0117	2.888	0.0070	2.801	0.2050	0.0477	55	0.42	321.33	0
321	Acid Soluble Zn (2%)	0572	2.891	0.0647	2.801	0.2050	0.0477	55	0.44	321.99	0
321	Acid Soluble Zn (2%)	0553	2.920	0.1000	2.801	0.2050	0.0477	55	0.58	321.00	0
321	Acid Soluble Zn (2%)	0422	2.923	0.0290	2.801	0.2050	0.0477	55	0.59	321.30	0
321	Acid Soluble Zn (2%)	0023	2.955	0.0070	2.801	0.2050	0.0477	55	0.75	321.99	0
321	Acid Soluble Zn (2%)	0027	2.966	0.0440	2.801	0.2050	0.0477	55	0.80	321.99	0
321	Acid Soluble Zn (2%)	0291	2.980	0.0200	2.801	0.2050	0.0477	55	0.87	321.30	0
321	Acid Soluble Zn (2%)	0049	2.982	0.0570	2.801	0.2050	0.0477	55	0.88	321.30	0
321	Acid Soluble Zn (2%)	0029	2.984	0.0850	2.801	0.2050	0.0477	55	0.89	321.00	0
321	Acid Soluble Zn (2%)	0605	3.000	0.0400	2.801	0.2050	0.0477	55	0.97	321.99	0
321	Acid Soluble Zn (2%)	0451	3.047	0.1470	2.801	0.2050	0.0477	55	1.20	321.30	0
321	Acid Soluble Zn (2%)	0106	3.071	0.0399	2.801	0.2050	0.0477	55	1.31	321.33	0
321	Acid Soluble Zn (2%)	0035	3.090‡	0.2400	2.801	0.2050	0.0477	55	1.41	321.30	0
321	Acid Soluble Zn (2%)	0513	3.100‡	0.0000	2.801	0.2050	0.0477	55	1.46	321.30	0
321	Acid Soluble Zn (2%)	0421	3.110‡	0.0800	2.801	0.2050	0.0477	55	1.51	321.33	0
321	Acid Soluble Zn (2%)	0231	3.115‡	0.0100	2.801	0.2050	0.0477	55	1.53	321.30	0
321	Acid Soluble Zn (2%)	0524	3.247‡	0.0638	2.801	0.2050	0.0477	55	2.18	321.99	0
321	Acid Soluble Zn (2%)	0521	3.658‡	0.0000	2.801	0.2050	0.0477	55	4.18	321.33	0
321	Acid Soluble Zn (2%)	0055	2.410†	0.3600	2.801	0.2050	0.0477	55	-1.91	321.33	1
321	Acid Soluble Zn (2%)	0377	3.000	0.3200	2.801	0.2050	0.0477	55	0.97	321.30	1
321	Acid Soluble Zn (2%)	0307	9.300‡	0.1000	2.801	0.2050	0.0477	55	31.70	321.99	2
325	Water Soluble Zn (%)	0513	0.5300	0.0000	1.077	0.9502	0.0673	4	-0.58	325.30	0
325	Water Soluble Zn (%)	0619	0.6385	0.0010	1.077	0.9502	0.0673	4	-0.46	325.30	0
325	Water Soluble Zn (%)	0619	0.6385	0.0010	1.077	0.9502	0.0673	4	-0.46	325.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Rob R-bar				
325	Water Soluble Zn (%)	0518	2.500	0.2000	1.077	0.9502	0.0673	4	1.50	325.00	0
441	Humic Acids (5%)	0518	0.9500	0.1000	5.292	0.9710	0.0744	13	-4.47	441.10	0
441	Humic Acids (5%)	0521	3.669	0.0000	5.292	0.9710	0.0744	13	-1.67	441.99	0
441	Humic Acids (5%)	0600	5.025	0.1500	5.292	0.9710	0.0744	13	-0.27	441.99	0
441	Humic Acids (5%)	0560	5.104	0.0120	5.292	0.9710	0.0744	13	-0.19	441.99	0
441	Humic Acids (5%)	0564	5.115	0.0500	5.292	0.9710	0.0744	13	-0.18	441.99	0
441	Humic Acids (5%)	0537	5.140	0.0400	5.292	0.9710	0.0744	13	-0.16	441.99	0
441	Humic Acids (5%)	0549	5.145	0.1300	5.292	0.9710	0.0744	13	-0.15	441.10	0
441	Humic Acids (5%)	0562	5.200	0.1600	5.292	0.9710	0.0744	13	-0.09	441.99	0
441	Humic Acids (5%)	0559	5.225	0.0100	5.292	0.9710	0.0744	13	-0.07	441.99	0
441	Humic Acids (5%)	0527	5.810	0.0119	5.292	0.9710	0.0744	13	0.53	441.10	0
441	Humic Acids (5%)	0619	5.860	0.0800	5.292	0.9710	0.0744	13	0.59	441.10	0
441	Humic Acids (5%)	0619	24.80	0.0000	5.292	0.9710	0.0744	13	20.09	441.00	0
441	Humic Acids (5%)	0619	24.80	0.0000	5.292	0.9710	0.0744	13	20.09	441.99	0
441	Humic Acids (5%)	0368	1.416	0.5175	5.292	0.9710	0.0744	13	-3.99	441.10	1
441	Humic Acids (5%)	0136	< 0.5		5.292	0.9710	0.0744	13		441.00	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 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. Identical duplicates not included in calculation of Rob R-bar. 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.