



Analyte PT For All Labs
 Sample # 240714
 18-46-0 DAP

Magruder Fertilizer Proficiency Testing Program
 Regular PT Scheme Sample Doubles with P Scheme
 Statistical Summary

Analytes: 36
 # Labs Reporting: 84
 Issue Date : 08/31/2024

Analyte Code	Analyte Sample # 240714	# 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 (%)	33	32	17.52	0.8385	17.64		0.6157	0.1361	3.49%		0.0810	2.38%
002	Nitrate N (%)	1		0.0100									
005	Urea N (%)	2	2	9.505	12.61								
009	Ammoniacal Plus Nitrate N (%)	1		17.95									
010	Total N (18%)	70	69	18.10	0.4110	18.08	0.7012	0.3023	0.0455	1.67%	1.00	0.1259	2.35%
020	Total P2O5 (%)	58	56	45.91	1.619	46.29		0.7010	0.1171	1.51%		0.1829	1.47%
030	Citrate Insoluble P2O5 (%)	9	8	5.354	14.56	0.2211		0.2087	0.0922	94.37%		0.0480	5.02%
040	Indirect Available P2O5 (46%)	7	7	46.26	1.232	46.42	1.0063	1.006	0.4752	2.17%	2.33	0.1365	1.47%
041	Direct Available P2O5 (46%)	43	42	46.39	0.6702	46.39	1.0058	0.5567	0.1074	1.20%	1.29	0.2156	1.47%
048	Water Soluble P2O5 (%)	23	22	41.65	1.032	41.75		0.5972	0.1591	1.43%		0.1693	1.55%
050	Soluble K2O (%)	13	11	0.1178	0.0780	0.1385	0.4100	0.0688	0.0259	49.65%	0.39	0.0078	5.39%
060	Water (Free) (%)	5	5	1.302	0.3680	1.302		0.3680	0.2057	28.27%		0.1087	3.84%
101	Acid Soluble Ca (%)	15	12	0.2650	0.1212	0.2511	0.2126	0.0578	0.0209	23.02%	0.63	0.0172	4.92%
121	Acid Soluble Mg (%)	18	17	0.5045	0.1114	0.4911	0.2246	0.0864	0.0262	17.58%	0.90	0.0167	4.45%
131	Water Soluble Mg (%)	1		0.0798									
145	Sulfate S, HCl soluble (%)	1		4.470									
148	Total S (%)	11	9	1.220	0.4756	1.313	0.2656	0.2274	0.0947	17.32%	1.99	0.0347	3.84%
149	S - HNO3 soluble (%)	2	2	1.305	0.0004								
151	Acid Soluble As (ppm)	19	15	7.509	5.318	8.197		1.746	0.5636	21.30%		0.1757	11.66%
165	Acid Soluble B (%)	13	8	0.0101	0.0094	0.0126	0.0049	0.0122	0.0054	96.29%	5.79	0.0048	7.72%
171	Water Soluble B (%)	1		0.0109									
181	Acid Soluble Cd (ppm)	21	18	4.651	2.096	4.709		0.3720	0.1096	7.90%		0.1607	12.67%
191	Acid Soluble Cr (ppm)	21	21	70.16	8.618	70.14		9.666	2.637	13.78%		2.829	8.44%
202	Acid Soluble Co (ppm)	21	18	4.770	2.997	4.676	2.4028	1.569	0.4621	33.54%	1.52	0.2253	12.68%
221	Acid Soluble Cu (%)	23	13	0.0025	0.0064	0.0006	0.0051	0.0003	0.0001	49.19%	0.13	0.0002	12.36%
241	Acid Soluble Fe (%)	19	18	1.211	0.2235	1.230	0.1280	0.0882	0.0260	7.17%	1.61	0.0356	3.88%
251	Acid Soluble Pb (ppm)	18	10	2.627	2.131	2.740		2.381	0.9412	86.91%		0.1164	13.75%
261	Acid Soluble Mn (%)	16	15	0.0339	0.0116	0.0374	0.0087	0.0050	0.0016	13.43%	1.34	0.0009	6.56%
281	Acid Soluble Hg (ppm)	8	2	0.4846	0.7506	0.0086		0.0091	0.0080	105.96%		0.0051	22.00%

Analyte Code	Analyte Sample # 240714	# 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
289	Acid Soluble Mo (ppm)	22	20	8.883	4.443	10.29	4.0859	2.459	0.6873	23.90%	1.40	0.5769	11.26%
291	Acid Soluble Ni (ppm)	22	21	19.24	9.295	18.15		3.242	0.8842	17.86%		0.7327	10.34%
301	Acid Soluble Se (ppm)	13	3	1.288	2.691	0.6978		0.9433	0.6808	135.19%		0.1016	16.89%
311	Sodium (%)	9	8	0.1479	0.0394	0.1405	0.0190	0.0380	0.0168	27.05%	4.65	0.0059	5.37%
321	Acid Soluble Zn (%)	29	25	1.359	7.239	0.0077	0.0058	0.0028	0.0007	36.05%	1.12	0.0006	8.32%
325	Water Soluble Zn (%)	1		0.0017									
431	Soluble Si in nonliquids (%)	1		0.0070									

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: 36

Sample # 240714

Regular PT Scheme Sample Doubles with P Scheme

Labs Reporting: 84

18-46-0 DAP

Lab Values

Issue Date : 08/31/2024

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 (%)	0368	14.44	0.2890	17.64	0.6157	0.0810	32	-5.20	001.99	0
001	Ammoniacal N (%)	0423	15.58	0.2200	17.64	0.6157	0.0810	32	-3.35	001.99	0
001	Ammoniacal N (%)	0389	16.56	0.1600	17.64	0.6157	0.0810	32	-1.76	001.10	0
001	Ammoniacal N (%)	0394	16.76	0.0720	17.64	0.6157	0.0810	32	-1.43	001.99	0
001	Ammoniacal N (%)	0558	16.77	0.0224	17.64	0.6157	0.0810	32	-1.41	001.99	0
001	Ammoniacal N (%)	0231	16.80	0.1000	17.64	0.6157	0.0810	32	-1.37	001.10	0
001	Ammoniacal N (%)	0451	17.12	0.3600	17.64	0.6157	0.0810	32	-0.85	001.10	0
001	Ammoniacal N (%)	0564	17.23	0.0500	17.64	0.6157	0.0810	32	-0.68	001.99	0
001	Ammoniacal N (%)	0600	17.23	0.1500	17.64	0.6157	0.0810	32	-0.68	001.99	0
001	Ammoniacal N (%)	0553	17.33	0.0500	17.64	0.6157	0.0810	32	-0.51	001.99	0
001	Ammoniacal N (%)	0560	17.48	0.0800	17.64	0.6157	0.0810	32	-0.26	001.99	0
001	Ammoniacal N (%)	0220	17.52	0.0200	17.64	0.6157	0.0810	32	-0.20	001.99	0
001	Ammoniacal N (%)	0572	17.62	0.0456	17.64	0.6157	0.0810	32	-0.03	001.99	0
001	Ammoniacal N (%)	0562	17.66	0.1100	17.64	0.6157	0.0810	32	0.02	001.99	0
001	Ammoniacal N (%)	0027	17.82	0.0310	17.64	0.6157	0.0810	32	0.30	001.99	0
001	Ammoniacal N (%)	0255	17.83	0.0000	17.64	0.6157	0.0810	32	0.31	001.99	0
001	Ammoniacal N (%)	0586	17.86	0.1600	17.64	0.6157	0.0810	32	0.35	001.99	0
001	Ammoniacal N (%)	0581	17.90	0.0500	17.64	0.6157	0.0810	32	0.41	001.99	0
001	Ammoniacal N (%)	0444	17.95	0.1000	17.64	0.6157	0.0810	32	0.50	001.10	0
001	Ammoniacal N (%)	0405	17.98	0.0300	17.64	0.6157	0.0810	32	0.54	001.99	0
001	Ammoniacal N (%)	0619	18.00	0.1000	17.64	0.6157	0.0810	32	0.58	001.10	0
001	Ammoniacal N (%)	0619	18.00	0.1000	17.64	0.6157	0.0810	32	0.58	001.99	0
001	Ammoniacal N (%)	0136	18.03	0.0700	17.64	0.6157	0.0810	32	0.62	001.10	0
001	Ammoniacal N (%)	0096	18.05	0.1100	17.64	0.6157	0.0810	32	0.65	001.99	0
001	Ammoniacal N (%)	0593	18.05	0.1130	17.64	0.6157	0.0810	32	0.67	001.99	0
001	Ammoniacal N (%)	0584	18.06	0.0300	17.64	0.6157	0.0810	32	0.67	001.99	0
001	Ammoniacal N (%)	0605	18.06	0.0350	17.64	0.6157	0.0810	32	0.68	001.99	0
001	Ammoniacal N (%)	0510	18.10	0.0020	17.64	0.6157	0.0810	32	0.74	001.99	0
001	Ammoniacal N (%)	0517	18.10	0.1000	17.64	0.6157	0.0810	32	0.74	001.99	0
001	Ammoniacal N (%)	0513	18.12	0.0300	17.64	0.6157	0.0810	32	0.77	001.99	0
001	Ammoniacal N (%)	0612	18.43	0.0400	17.64	0.6157	0.0810	32	1.28	001.99	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				
001	Ammoniacal N (%)	0481	18.74	0.0500	17.64	0.6157	0.0810	32	1.78	001.99	0
001	Ammoniacal N (%)	0524	17.03	0.5296	17.64	0.6157	0.0810	32	-0.99	001.99	1
002	Nitrate N (%)	0423	< 0.01					0		002.99	5
005	Urea N (%)	0524	0.5891	0.1472				2		005.99	0
005	Urea N (%)	0638	18.42	0.0800				2		005.99	0
009	Ammoniacal Plus Nitrate N (%)	0444	17.95	0.1000				1		009.10	0
010	Total N (18%)	0558	17.07†	0.0377	18.08	0.3023	0.1259	69	-3.33	010.99	0
010	Total N (18%)	0102	17.23†	0.0400	18.08	0.3023	0.1259	69	-2.81	010.60	0
010	Total N (18%)	0562	17.30†	0.1700	18.08	0.3023	0.1259	69	-2.59	010.99	0
010	Total N (18%)	0588	17.30†	0.4000	18.08	0.3023	0.1259	69	-2.58	010.60	0
010	Total N (18%)	0600	17.59	0.1000	18.08	0.3023	0.1259	69	-1.62	010.99	0
010	Total N (18%)	0292	17.60	0.0600	18.08	0.3023	0.1259	69	-1.59	010.60	0
010	Total N (18%)	0564	17.63	0.0500	18.08	0.3023	0.1259	69	-1.50	010.99	0
010	Total N (18%)	0018	17.65	0.1000	18.08	0.3023	0.1259	69	-1.42	010.60	0
010	Total N (18%)	0422	17.68	0.0100	18.08	0.3023	0.1259	69	-1.34	010.60	0
010	Total N (18%)	0177	17.68	0.3440	18.08	0.3023	0.1259	69	-1.33	010.60	0
010	Total N (18%)	0560	17.70	0.1700	18.08	0.3023	0.1259	69	-1.27	010.99	0
010	Total N (18%)	0472	17.78	0.2700	18.08	0.3023	0.1259	69	-1.01	010.60	0
010	Total N (18%)	0543	17.79	0.0100	18.08	0.3023	0.1259	69	-0.97	010.60	0
010	Total N (18%)	0260	17.80	0.2000	18.08	0.3023	0.1259	69	-0.92	010.60	0
010	Total N (18%)	0534	17.80	0.0000	18.08	0.3023	0.1259	69	-0.92	010.60	0
010	Total N (18%)	0117	17.82	0.0718	18.08	0.3023	0.1259	69	-0.86	010.12	0
010	Total N (18%)	0494	17.85	0.7200	18.08	0.3023	0.1259	69	-0.76	010.60	0
010	Total N (18%)	0073	17.91	0.0700	18.08	0.3023	0.1259	69	-0.58	010.60	0
010	Total N (18%)	0043	17.93	0.0300	18.08	0.3023	0.1259	69	-0.51	010.60	0
010	Total N (18%)	0389	17.94	0.0100	18.08	0.3023	0.1259	69	-0.48	010.60	0
010	Total N (18%)	0521	17.95	0.0000	18.08	0.3023	0.1259	69	-0.43	010.60	0
010	Total N (18%)	0169	17.98	0.0500	18.08	0.3023	0.1259	69	-0.34	010.60	0
010	Total N (18%)	0007	18.00	0.0000	18.08	0.3023	0.1259	69	-0.26	010.60	0
010	Total N (18%)	0371	18.00	0.0000	18.08	0.3023	0.1259	69	-0.26	010.60	0
010	Total N (18%)	0402	18.01	0.2080	18.08	0.3023	0.1259	69	-0.23	010.60	0
010	Total N (18%)	0324	18.05	0.1000	18.08	0.3023	0.1259	69	-0.10	010.60	0
010	Total N (18%)	0086	18.05	0.0540	18.08	0.3023	0.1259	69	-0.09	010.60	0
010	Total N (18%)	0561	18.06	0.0100	18.08	0.3023	0.1259	69	-0.08	010.60	0
010	Total N (18%)	0605	18.06	0.0350	18.08	0.3023	0.1259	69	-0.07	010.99	0
010	Total N (18%)	0055	18.06	0.0800	18.08	0.3023	0.1259	69	-0.06	010.60	0
010	Total N (18%)	0234	18.08	0.1300	18.08	0.3023	0.1259	69	-0.01	010.60	0
010	Total N (18%)	0602	18.08	0.1000	18.08	0.3023	0.1259	69	0.00	010.99	0
010	Total N (18%)	0231	18.10	0.0300	18.08	0.3023	0.1259	69	0.05	010.60	0
010	Total N (18%)	0356	18.11	0.1980	18.08	0.3023	0.1259	69	0.09	010.60	0
010	Total N (18%)	0602	18.11	0.0400	18.08	0.3023	0.1259	69	0.10	010.12	0
010	Total N (18%)	0095	18.14	0.1500	18.08	0.3023	0.1259	69	0.18	010.60	0
010	Total N (18%)	0025	18.14	0.2400	18.08	0.3023	0.1259	69	0.20	010.60	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				
010	Total N (18%)	0451	18.15	0.0900	18.08	0.3023	0.1259	69	0.22	010.60	0
010	Total N (18%)	0510	18.15	0.0477	18.08	0.3023	0.1259	69	0.23	010.11	0
010	Total N (18%)	0185	18.16	0.0800	18.08	0.3023	0.1259	69	0.27	010.60	0
010	Total N (18%)	0405	18.16	0.0200	18.08	0.3023	0.1259	69	0.27	010.60	0
010	Total N (18%)	0106	18.18	0.0500	18.08	0.3023	0.1259	69	0.32	010.60	0
010	Total N (18%)	0423	18.18	0.1000	18.08	0.3023	0.1259	69	0.33	010.60	0
010	Total N (18%)	0368	18.19	0.1500	18.08	0.3023	0.1259	69	0.38	010.60	0
010	Total N (18%)	0291	18.20	0.0100	18.08	0.3023	0.1259	69	0.38	010.60	0
010	Total N (18%)	0452	18.21	0.3830	18.08	0.3023	0.1259	69	0.43	010.60	0
010	Total N (18%)	0582	18.22	0.0400	18.08	0.3023	0.1259	69	0.47	010.60	0
010	Total N (18%)	0136	18.25	0.1900	18.08	0.3023	0.1259	69	0.55	010.60	0
010	Total N (18%)	0040	18.25	0.1000	18.08	0.3023	0.1259	69	0.57	010.60	0
010	Total N (18%)	0354	18.25	0.1000	18.08	0.3023	0.1259	69	0.57	010.60	0
010	Total N (18%)	0220	18.26	0.0200	18.08	0.3023	0.1259	69	0.60	010.60	0
010	Total N (18%)	0593	18.28	0.2100	18.08	0.3023	0.1259	69	0.65	010.60	0
010	Total N (18%)	0034	18.29	0.0280	18.08	0.3023	0.1259	69	0.68	010.60	0
010	Total N (18%)	0612	18.29	0.5600	18.08	0.3023	0.1259	69	0.70	010.60	0
010	Total N (18%)	0481	18.30	0.0700	18.08	0.3023	0.1259	69	0.71	010.60	0
010	Total N (18%)	0518	18.30	0.2000	18.08	0.3023	0.1259	69	0.73	010.60	0
010	Total N (18%)	0035	18.30	0.4000	18.08	0.3023	0.1259	69	0.73	010.60	0
010	Total N (18%)	0524	18.31	0.1914	18.08	0.3023	0.1259	69	0.76	010.99	0
010	Total N (18%)	0255	18.36	0.0800	18.08	0.3023	0.1259	69	0.92	010.60	0
010	Total N (18%)	0527	18.37	0.0140	18.08	0.3023	0.1259	69	0.97	010.60	0
010	Total N (18%)	0377	18.38	0.2100	18.08	0.3023	0.1259	69	0.98	010.60	0
010	Total N (18%)	0029	18.39	0.1600	18.08	0.3023	0.1259	69	1.03	010.60	0
010	Total N (18%)	0542	18.41	0.2730	18.08	0.3023	0.1259	69	1.08	010.60	0
010	Total N (18%)	0307	18.45	0.9000	18.08	0.3023	0.1259	69	1.23	010.60	0
010	Total N (18%)	0027	18.52	0.1100	18.08	0.3023	0.1259	69	1.44	010.60	0
010	Total N (18%)	0049	18.54	0.1200	18.08	0.3023	0.1259	69	1.52	010.60	0
010	Total N (18%)	0481	19.01‡	0.4600	18.08	0.3023	0.1259	69	3.08	010.99	0
010	Total N (18%)	0485	19.05‡	0.5000	18.08	0.3023	0.1259	69	3.21	010.60	0
010	Total N (18%)	0023	19.85‡	0.1340	18.08	0.3023	0.1259	69	5.85	010.60	0
010	Total N (18%)	0572	18.65	1.744	18.08	0.3023	0.1259	69	1.89	010.12	1
020	Total P2O5 (%)	0543	40.33	0.1120	46.29	0.7010	0.1829	56	-8.50	020.50	0
020	Total P2O5 (%)	0389	41.00	0.2000	46.29	0.7010	0.1829	56	-7.54	020.50	0
020	Total P2O5 (%)	0515	41.30	1.800	46.29	0.7010	0.1829	56	-7.11	020.99	0
020	Total P2O5 (%)	0423	41.90	0.0100	46.29	0.7010	0.1829	56	-6.26	020.50	0
020	Total P2O5 (%)	0255	42.23	2.153	46.29	0.7010	0.1829	56	-5.79	020.50	0
020	Total P2O5 (%)	0307	42.85	0.1000	46.29	0.7010	0.1829	56	-4.90	020.50	0
020	Total P2O5 (%)	0588	45.01	2.860	46.29	0.7010	0.1829	56	-1.82	020.50	0
020	Total P2O5 (%)	0472	45.11	0.1900	46.29	0.7010	0.1829	56	-1.69	020.50	0
020	Total P2O5 (%)	0558	45.50	0.0432	46.29	0.7010	0.1829	56	-1.12	020.20	0
020	Total P2O5 (%)	0444	45.82	0.3100	46.29	0.7010	0.1829	56	-0.67	020.50	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				
020	Total P2O5 (%)	0402	45.86	0.2140	46.29	0.7010	0.1829	56	-0.62	020.50	0
020	Total P2O5 (%)	0534	45.89	0.0300	46.29	0.7010	0.1829	56	-0.57	020.20	0
020	Total P2O5 (%)	0612	45.89	1.370	46.29	0.7010	0.1829	56	-0.57	020.50	0
020	Total P2O5 (%)	0510	45.90	0.0505	46.29	0.7010	0.1829	56	-0.54	020.20	0
020	Total P2O5 (%)	0451	45.92	0.1600	46.29	0.7010	0.1829	56	-0.52	020.50	0
020	Total P2O5 (%)	0638	45.99	0.3600	46.29	0.7010	0.1829	56	-0.42	020.99	0
020	Total P2O5 (%)	0513	46.03	0.0400	46.29	0.7010	0.1829	56	-0.37	020.99	0
020	Total P2O5 (%)	0169	46.04	0.0800	46.29	0.7010	0.1829	56	-0.35	020.20	0
020	Total P2O5 (%)	0292	46.05	0.0300	46.29	0.7010	0.1829	56	-0.34	020.20	0
020	Total P2O5 (%)	0444	46.05	0.1000	46.29	0.7010	0.1829	56	-0.34	020.10	0
020	Total P2O5 (%)	0560	46.06	0.0300	46.29	0.7010	0.1829	56	-0.33	020.99	0
020	Total P2O5 (%)	0564	46.07	0.0300	46.29	0.7010	0.1829	56	-0.32	020.99	0
020	Total P2O5 (%)	0572	46.14	0.2509	46.29	0.7010	0.1829	56	-0.21	020.99	0
020	Total P2O5 (%)	0562	46.18	0.1500	46.29	0.7010	0.1829	56	-0.16	020.99	0
020	Total P2O5 (%)	0600	46.18	0.1500	46.29	0.7010	0.1829	56	-0.16	020.99	0
020	Total P2O5 (%)	0291	46.23	0.0100	46.29	0.7010	0.1829	56	-0.09	020.50	0
020	Total P2O5 (%)	0619	46.25	0.1000	46.29	0.7010	0.1829	56	-0.05	020.10	0
020	Total P2O5 (%)	0324	46.25	1.900	46.29	0.7010	0.1829	56	-0.05	020.20	0
020	Total P2O5 (%)	0619	46.25	0.1000	46.29	0.7010	0.1829	56	-0.05	020.99	0
020	Total P2O5 (%)	0615	46.30	1.000	46.29	0.7010	0.1829	56	0.02	020.20	0
020	Total P2O5 (%)	0602	46.35	0.1000	46.29	0.7010	0.1829	56	0.09	020.20	0
020	Total P2O5 (%)	0602	46.35	0.1000	46.29	0.7010	0.1829	56	0.09	020.99	0
020	Total P2O5 (%)	0405	46.44	0.0200	46.29	0.7010	0.1829	56	0.22	020.20	0
020	Total P2O5 (%)	0561	46.47	0.0100	46.29	0.7010	0.1829	56	0.25	020.20	0
020	Total P2O5 (%)	0521	46.49	0.0000	46.29	0.7010	0.1829	56	0.29	020.50	0
020	Total P2O5 (%)	0527	46.53	0.0139	46.29	0.7010	0.1829	56	0.34	020.50	0
020	Total P2O5 (%)	0394	46.55	0.4420	46.29	0.7010	0.1829	56	0.38	020.20	0
020	Total P2O5 (%)	0231	46.56	0.0500	46.29	0.7010	0.1829	56	0.38	020.20	0
020	Total P2O5 (%)	0513	46.65	0.0700	46.29	0.7010	0.1829	56	0.51	020.10	0
020	Total P2O5 (%)	0096	46.66	0.0300	46.29	0.7010	0.1829	56	0.53	020.40	0
020	Total P2O5 (%)	0581	46.67	0.1400	46.29	0.7010	0.1829	56	0.55	020.20	0
020	Total P2O5 (%)	0371	46.70	0.0000	46.29	0.7010	0.1829	56	0.59	020.20	0
020	Total P2O5 (%)	0524	46.72	0.6941	46.29	0.7010	0.1829	56	0.62	020.50	0
020	Total P2O5 (%)	0517	46.80	0.1000	46.29	0.7010	0.1829	56	0.73	020.20	0
020	Total P2O5 (%)	0582	46.80	0.1000	46.29	0.7010	0.1829	56	0.73	020.20	0
020	Total P2O5 (%)	0368	46.89	0.2652	46.29	0.7010	0.1829	56	0.87	020.50	0
020	Total P2O5 (%)	0481	46.96	0.0600	46.29	0.7010	0.1829	56	0.96	020.20	0
020	Total P2O5 (%)	0586	47.00	0.0600	46.29	0.7010	0.1829	56	1.02	020.40	0
020	Total P2O5 (%)	0356	47.05	0.6310	46.29	0.7010	0.1829	56	1.09	020.20	0
020	Total P2O5 (%)	0593	47.08	0.2700	46.29	0.7010	0.1829	56	1.12	020.20	0
020	Total P2O5 (%)	0157	47.20	0.2000	46.29	0.7010	0.1829	56	1.30	020.10	0
020	Total P2O5 (%)	0234	47.20	0.2000	46.29	0.7010	0.1829	56	1.30	020.50	0
020	Total P2O5 (%)	0035	47.25	0.3000	46.29	0.7010	0.1829	56	1.37	020.40	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				
020	Total P2O5 (%)	0542	47.57	0.3580	46.29	0.7010	0.1829	56	1.84	020.50	0
020	Total P2O5 (%)	0220	47.80	0.1400	46.29	0.7010	0.1829	56	2.16	020.20	0
020	Total P2O5 (%)	0422	48.33	0.6416	46.29	0.7010	0.1829	56	2.91	020.50	0
020	Total P2O5 (%)	0552	44.99	5.270	46.29	0.7010	0.1829	56	-1.86	020.50	1
020	Total P2O5 (%)	0157	46.40	4.600	46.29	0.7010	0.1829	56	0.16	020.50	1
030	Citrate Insoluble P2O5 (%)	0593	0.0350	0.0300	0.2211	0.2087	0.0480	8	-0.82	030.99	0
030	Citrate Insoluble P2O5 (%)	0405	0.0550	0.0100	0.2211	0.2087	0.0480	8	-0.73	030.20	0
030	Citrate Insoluble P2O5 (%)	0220	0.1400	0.0400	0.2211	0.2087	0.0480	8	-0.36	030.20	0
030	Citrate Insoluble P2O5 (%)	0582	0.1400	0.0400	0.2211	0.2087	0.0480	8	-0.36	030.50	0
030	Citrate Insoluble P2O5 (%)	0581	0.1800	0.0800	0.2211	0.2087	0.0480	8	-0.18	030.50	0
030	Citrate Insoluble P2O5 (%)	0602	0.2150	0.0500	0.2211	0.2087	0.0480	8	-0.03	030.20	0
030	Citrate Insoluble P2O5 (%)	0586	0.4700	0.0400	0.2211	0.2087	0.0480	8	1.09	030.40	0
030	Citrate Insoluble P2O5 (%)	0096	2.850	0.3600	0.2211	0.2087	0.0480	8	11.52	030.40	0
030	Citrate Insoluble P2O5 (%)	0444	44.10	0.6000	0.2211	0.2087	0.0480	8	192.31	030.10	2
040	Indirect Available P2O5 (46%)	0096	43.81†	0.3900	46.42	1.006	0.1365	7	-2.35	040.40	0
040	Indirect Available P2O5 (46%)	0547	45.75	0.1000	46.42	1.006	0.1365	7	-0.60	040.50	0
040	Indirect Available P2O5 (46%)	0405	46.39	0.0300	46.42	1.006	0.1365	7	-0.03	040.99	0
040	Indirect Available P2O5 (46%)	0586	46.53	0.0200	46.42	1.006	0.1365	7	0.10	040.40	0
040	Indirect Available P2O5 (46%)	0582	46.66	0.1400	46.42	1.006	0.1365	7	0.22	040.99	0
040	Indirect Available P2O5 (46%)	0593	47.04	0.2400	46.42	1.006	0.1365	7	0.56	040.99	0
040	Indirect Available P2O5 (46%)	0220	47.66‡	0.1000	46.42	1.006	0.1365	7	1.12	040.10	0
041	Direct Available P2O5 (46%)	0472	44.85†	0.0300	46.39	0.5567	0.2156	42	-2.77	041.21	0
041	Direct Available P2O5 (46%)	0106	44.90†	0.7200	46.39	0.5567	0.2156	42	-2.67	041.21	0
041	Direct Available P2O5 (46%)	0452	45.12†	1.290	46.39	0.5567	0.2156	42	-2.29	041.20	0
041	Direct Available P2O5 (46%)	0558	45.32†	0.0093	46.39	0.5567	0.2156	42	-1.92	041.21	0
041	Direct Available P2O5 (46%)	0560	45.86	0.0700	46.39	0.5567	0.2156	42	-0.96	041.99	0
041	Direct Available P2O5 (46%)	0564	45.89	0.0200	46.39	0.5567	0.2156	42	-0.90	041.99	0
041	Direct Available P2O5 (46%)	0600	45.90	0.1000	46.39	0.5567	0.2156	42	-0.88	041.99	0
041	Direct Available P2O5 (46%)	0185	45.92	0.2900	46.39	0.5567	0.2156	42	-0.85	041.11	0
041	Direct Available P2O5 (46%)	0562	45.93	0.1500	46.39	0.5567	0.2156	42	-0.83	041.99	0
041	Direct Available P2O5 (46%)	0231	45.97	0.2300	46.39	0.5567	0.2156	42	-0.76	041.21	0
041	Direct Available P2O5 (46%)	0494	46.04	0.0900	46.39	0.5567	0.2156	42	-0.63	041.51	0
041	Direct Available P2O5 (46%)	0177	46.06	0.2284	46.39	0.5567	0.2156	42	-0.58	041.21	0
041	Direct Available P2O5 (46%)	0584	46.10	0.0900	46.39	0.5567	0.2156	42	-0.53	041.99	0
041	Direct Available P2O5 (46%)	0553	46.13	0.3000	46.39	0.5567	0.2156	42	-0.46	041.20	0
041	Direct Available P2O5 (46%)	0602	46.14	0.0500	46.39	0.5567	0.2156	42	-0.46	041.20	0
041	Direct Available P2O5 (46%)	0602	46.14	0.0500	46.39	0.5567	0.2156	42	-0.46	041.99	0
041	Direct Available P2O5 (46%)	0049	46.20	0.5800	46.39	0.5567	0.2156	42	-0.34	041.11	0
041	Direct Available P2O5 (46%)	0177	46.22	0.0939	46.39	0.5567	0.2156	42	-0.30	041.10	0
041	Direct Available P2O5 (46%)	0405	46.27	0.0200	46.39	0.5567	0.2156	42	-0.21	041.11	0
041	Direct Available P2O5 (46%)	0043	46.33	0.1600	46.39	0.5567	0.2156	42	-0.10	041.51	0
041	Direct Available P2O5 (46%)	0394	46.34	0.1460	46.39	0.5567	0.2156	42	-0.09	041.21	0
041	Direct Available P2O5 (46%)	0102	46.36	0.4200	46.39	0.5567	0.2156	42	-0.05	041.10	0

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041	Direct Available P2O5 (46%)	0513	46.37	0.0900	46.39	0.5567	0.2156	42	-0.04	041.11	0
041	Direct Available P2O5 (46%)	0518	46.45	0.1000	46.39	0.5567	0.2156	42	0.11	041.99	0
041	Direct Available P2O5 (46%)	0027	46.48	0.2530	46.39	0.5567	0.2156	42	0.16	041.20	0
041	Direct Available P2O5 (46%)	0055	46.53	0.4150	46.39	0.5567	0.2156	42	0.26	041.11	0
041	Direct Available P2O5 (46%)	0517	46.55	0.1000	46.39	0.5567	0.2156	42	0.29	041.11	0
041	Direct Available P2O5 (46%)	0018	46.60	0.0000	46.39	0.5567	0.2156	42	0.38	041.40	0
041	Direct Available P2O5 (46%)	0423	46.69	0.0200	46.39	0.5567	0.2156	42	0.54	041.51	0
041	Direct Available P2O5 (46%)	0485	46.70	0.2000	46.39	0.5567	0.2156	42	0.56	041.11	0
041	Direct Available P2O5 (46%)	0220	46.79	0.0100	46.39	0.5567	0.2156	42	0.71	041.11	0
041	Direct Available P2O5 (46%)	0605	46.79	0.2580	46.39	0.5567	0.2156	42	0.71	041.50	0
041	Direct Available P2O5 (46%)	0040	46.80	0.0000	46.39	0.5567	0.2156	42	0.74	041.10	0
041	Direct Available P2O5 (46%)	0354	46.85	0.1000	46.39	0.5567	0.2156	42	0.83	041.21	0
041	Direct Available P2O5 (46%)	0055	46.87	0.5150	46.39	0.5567	0.2156	42	0.87	041.21	0
041	Direct Available P2O5 (46%)	0025	46.95	1.300	46.39	0.5567	0.2156	42	1.01	041.51	0
041	Direct Available P2O5 (46%)	0377	46.99	1.580	46.39	0.5567	0.2156	42	1.08	041.51	0
041	Direct Available P2O5 (46%)	0494	47.12	0.1400	46.39	0.5567	0.2156	42	1.31	041.10	0
041	Direct Available P2O5 (46%)	0034	47.15	0.2809	46.39	0.5567	0.2156	42	1.36	041.40	0
041	Direct Available P2O5 (46%)	0073	47.48‡	0.3100	46.39	0.5567	0.2156	42	1.95	041.11	0
041	Direct Available P2O5 (46%)	0136	47.75‡	1.300	46.39	0.5567	0.2156	42	2.45	041.51	0
041	Direct Available P2O5 (46%)	0023	48.18‡	0.2400	46.39	0.5567	0.2156	42	3.22	041.51	0
041	Direct Available P2O5 (46%)	0095	46.89	2.210	46.39	0.5567	0.2156	42	0.89	041.21	1
048	Water Soluble P2O5 (%)	0472	38.68	0.1700	41.75	0.5972	0.1693	22	-5.14	048.20	0
048	Water Soluble P2O5 (%)	0513	39.68	0.1200	41.75	0.5972	0.1693	22	-3.46	048.99	0
048	Water Soluble P2O5 (%)	0517	40.00	0.2000	41.75	0.5972	0.1693	22	-2.92	048.99	0
048	Water Soluble P2O5 (%)	0405	41.12	0.0100	41.75	0.5972	0.1693	22	-1.06	048.20	0
048	Water Soluble P2O5 (%)	0096	41.53	0.0400	41.75	0.5972	0.1693	22	-0.36	048.40	0
048	Water Soluble P2O5 (%)	0564	41.60	0.1000	41.75	0.5972	0.1693	22	-0.24	048.99	0
048	Water Soluble P2O5 (%)	0562	41.60	0.2000	41.75	0.5972	0.1693	22	-0.24	048.99	0
048	Water Soluble P2O5 (%)	0600	41.60	0.2000	41.75	0.5972	0.1693	22	-0.24	048.99	0
048	Water Soluble P2O5 (%)	0231	41.65	0.0100	41.75	0.5972	0.1693	22	-0.17	048.20	0
048	Water Soluble P2O5 (%)	0394	41.68	0.0220	41.75	0.5972	0.1693	22	-0.10	048.20	0
048	Water Soluble P2O5 (%)	0560	41.70	0.0700	41.75	0.5972	0.1693	22	-0.08	048.99	0
048	Water Soluble P2O5 (%)	0586	41.75	0.2500	41.75	0.5972	0.1693	22	0.00	048.40	0
048	Water Soluble P2O5 (%)	0582	41.78	0.1000	41.75	0.5972	0.1693	22	0.06	048.20	0
048	Water Soluble P2O5 (%)	0444	41.85	0.1000	41.75	0.5972	0.1693	22	0.18	048.10	0
048	Water Soluble P2O5 (%)	0602	41.85	0.1000	41.75	0.5972	0.1693	22	0.18	048.20	0
048	Water Soluble P2O5 (%)	0602	41.85	0.1000	41.75	0.5972	0.1693	22	0.18	048.99	0
048	Water Soluble P2O5 (%)	0593	41.86	0.4600	41.75	0.5972	0.1693	22	0.19	048.20	0
048	Water Soluble P2O5 (%)	0220	42.37	1.130	41.75	0.5972	0.1693	22	1.04	048.20	0
048	Water Soluble P2O5 (%)	0619	42.40	0.0000	41.75	0.5972	0.1693	22	1.10	048.10	0
048	Water Soluble P2O5 (%)	0619	42.40	0.0000	41.75	0.5972	0.1693	22	1.10	048.99	0
048	Water Soluble P2O5 (%)	0444	42.72	0.5400	41.75	0.5972	0.1693	22	1.63	048.50	0
048	Water Soluble P2O5 (%)	0605	43.11	1.393	41.75	0.5972	0.1693	22	2.28	048.99	0

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048	Water Soluble P2O5 (%)	0572	43.26	1.634	41.75	0.5972	0.1693	22	2.54	048.99	1
050	Soluble K2O (%)	0255	0.0210	0.0020	0.1385	0.0688	0.0078	11	-1.71	050.99	0
050	Soluble K2O (%)	0542	0.0744	0.0086	0.1385	0.0688	0.0078	11	-0.93	050.99	0
050	Soluble K2O (%)	0588	0.0935	0.0730	0.1385	0.0688	0.0078	11	-0.65	050.99	0
050	Soluble K2O (%)	0481	0.1100	0.0000	0.1385	0.0688	0.0078	11	-0.41	050.99	0
050	Soluble K2O (%)	0572	0.1373	0.0058	0.1385	0.0688	0.0078	11	-0.02	050.99	0
050	Soluble K2O (%)	0422	0.1416	0.0021	0.1385	0.0688	0.0078	11	0.04	050.50	0
050	Soluble K2O (%)	0524	0.1492	0.0053	0.1385	0.0688	0.0078	11	0.16	050.99	0
050	Soluble K2O (%)	0096	0.1550	0.0100	0.1385	0.0688	0.0078	11	0.24	050.99	0
050	Soluble K2O (%)	0354	0.1585	0.0010	0.1385	0.0688	0.0078	11	0.29	050.52	0
050	Soluble K2O (%)	0423	0.2270	0.0060	0.1385	0.0688	0.0078	11	1.29	050.52	0
050	Soluble K2O (%)	0324	0.2545	0.0890	0.1385	0.0688	0.0078	11	1.69	050.50	0
050	Soluble K2O (%)	0552	0.0000	0.0000	0.1385	0.0688	0.0078	11		050.99	4
050	Soluble K2O (%)	0527	< 0.01		0.1385	0.0688	0.0078	11		050.99	5
060	Water (Free) (%)	0517	0.9350	0.0300	1.302	0.3680	0.1087	5	-1.00	060.00	0
060	Water (Free) (%)	0513	0.9450	0.0100	1.302	0.3680	0.1087	5	-0.97	060.00	0
060	Water (Free) (%)	0593	1.375	0.1700	1.302	0.3680	0.1087	5	0.20	060.30	0
060	Water (Free) (%)	0510	1.448	0.0436	1.302	0.3680	0.1087	5	0.40	060.99	0
060	Water (Free) (%)	0096	1.805	0.2900	1.302	0.3680	0.1087	5	1.37	060.00	0
101	Acid Soluble Ca (%)	0515	0.1192	0.0005	0.2511	0.0578	0.0172	12	-2.28	101.99	0
101	Acid Soluble Ca (%)	0542	0.1920	0.0044	0.2511	0.0578	0.0172	12	-1.02	101.99	0
101	Acid Soluble Ca (%)	0572	0.2015	0.0082	0.2511	0.0578	0.0172	12	-0.86	101.99	0
101	Acid Soluble Ca (%)	0422	0.2262	0.0051	0.2511	0.0578	0.0172	12	-0.43	101.30	0
101	Acid Soluble Ca (%)	0095	0.2400	0.0000	0.2511	0.0578	0.0172	12	-0.19	101.32	0
101	Acid Soluble Ca (%)	0096	0.2455	0.0010	0.2511	0.0578	0.0172	12	-0.10	101.30	0
101	Acid Soluble Ca (%)	0324	0.2565	0.0330	0.2511	0.0578	0.0172	12	0.09	101.30	0
101	Acid Soluble Ca (%)	0472	0.2600	0.0000	0.2511	0.0578	0.0172	12	0.15	101.33	0
101	Acid Soluble Ca (%)	0035	0.2790	0.0340	0.2511	0.0578	0.0172	12	0.48	101.30	0
101	Acid Soluble Ca (%)	0593	0.2950	0.0100	0.2511	0.0578	0.0172	12	0.76	101.99	0
101	Acid Soluble Ca (%)	0354	0.3150	0.0500	0.2511	0.0578	0.0172	12	1.11	101.30	0
101	Acid Soluble Ca (%)	0581	0.3850	0.0300	0.2511	0.0578	0.0172	12	2.32	101.32	0
101	Acid Soluble Ca (%)	0552	0.4500	0.1000	0.2511	0.0578	0.0172	12	3.44	101.99	1
101	Acid Soluble Ca (%)	0527	< 0.01		0.2511	0.0578	0.0172	12		101.33	5
101	Acid Soluble Ca (%)	0423	< 0.5		0.2511	0.0578	0.0172	12		101.32	5
121	Acid Soluble Mg (%)	0515	0.3539	0.0150	0.4911	0.0864	0.0167	17	-1.59	121.33	0
121	Acid Soluble Mg (%)	0515	0.3843	0.0322	0.4911	0.0864	0.0167	17	-1.24	121.99	0
121	Acid Soluble Mg (%)	0542	0.3848	0.0066	0.4911	0.0864	0.0167	17	-1.23	121.99	0
121	Acid Soluble Mg (%)	0572	0.3990	0.0167	0.4911	0.0864	0.0167	17	-1.07	121.99	0
121	Acid Soluble Mg (%)	0494	0.4685	0.0232	0.4911	0.0864	0.0167	17	-0.26	121.33	0
121	Acid Soluble Mg (%)	0423	0.4705	0.0010	0.4911	0.0864	0.0167	17	-0.24	121.32	0
121	Acid Soluble Mg (%)	0422	0.4734	0.0026	0.4911	0.0864	0.0167	17	-0.21	121.30	0
121	Acid Soluble Mg (%)	0095	0.4900	0.0000	0.4911	0.0864	0.0167	17	-0.01	121.32	0
121	Acid Soluble Mg (%)	0354	0.5050	0.0100	0.4911	0.0864	0.0167	17	0.16	121.30	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				
121	Acid Soluble Mg (%)	0096	0.5100	0.0200	0.4911	0.0864	0.0167	17	0.22	121.30	0
121	Acid Soluble Mg (%)	0527	0.5114	0.0021	0.4911	0.0864	0.0167	17	0.23	121.33	0
121	Acid Soluble Mg (%)	0324	0.5220	0.0720	0.4911	0.0864	0.0167	17	0.36	121.30	0
121	Acid Soluble Mg (%)	0593	0.5300	0.0000	0.4911	0.0864	0.0167	17	0.45	121.99	0
121	Acid Soluble Mg (%)	0524	0.5489	0.0386	0.4911	0.0864	0.0167	17	0.67	121.99	0
121	Acid Soluble Mg (%)	0035	0.5495	0.0090	0.4911	0.0864	0.0167	17	0.68	121.30	0
121	Acid Soluble Mg (%)	0472	0.6200	0.0000	0.4911	0.0864	0.0167	17	1.49	121.33	0
121	Acid Soluble Mg (%)	0581	0.8600	0.0000	0.4911	0.0864	0.0167	17	4.27	121.30	0
121	Acid Soluble Mg (%)	0552	0.5000	0.1000	0.4911	0.0864	0.0167	17	0.10	121.99	1
131	Water Soluble Mg (%)	0572	0.0798	0.0081				1		131.99	0
145	Sulfate S, HCl soluble (%)	0593	4.470	0.0800				1		145.99	0
148	Total S (%)	0572	1.050	0.0589	1.313	0.2274	0.0347	9	-1.07	148.99	0
148	Total S (%)	0542	1.068	0.0370	1.313	0.2274	0.0347	9	-1.00	148.99	0
148	Total S (%)	0515	1.106	0.0360	1.313	0.2274	0.0347	9	-0.84	148.07	0
148	Total S (%)	0422	1.328	0.0020	1.313	0.2274	0.0347	9	0.06	148.99	0
148	Total S (%)	0096	1.380	0.0400	1.313	0.2274	0.0347	9	0.27	148.99	0
148	Total S (%)	0472	1.400	0.0000	1.313	0.2274	0.0347	9	0.35	148.07	0
148	Total S (%)	0494	1.415	0.0156	1.313	0.2274	0.0347	9	0.41	148.07	0
148	Total S (%)	0354	1.415	0.1100	1.313	0.2274	0.0347	9	0.42	148.99	0
148	Total S (%)	0593	1.985	0.0100	1.313	0.2274	0.0347	9	2.73	148.00	0
148	Total S (%)	0324	1.260	0.4200	1.313	0.2274	0.0347	9	-0.21	148.01	1
148	Total S (%)	0527	< 0.01		1.313	0.2274	0.0347	9		148.07	5
149	S - HNO3 soluble (%)	0524	1.305	0.0464				2		149.04	0
149	S - HNO3 soluble (%)	0423	1.305	0.0100				2		149.04	0
151	Acid Soluble As (ppm)	0515	4.519	0.9000	8.197	1.746	0.1757	15	-2.11	151.33	0
151	Acid Soluble As (ppm)	0513	5.990	0.0400	8.197	1.746	0.1757	15	-1.26	151.30	0
151	Acid Soluble As (ppm)	0593	7.000	0.2000	8.197	1.746	0.1757	15	-0.69	151.30	0
151	Acid Soluble As (ppm)	0494	7.265	0.1300	8.197	1.746	0.1757	15	-0.53	151.33	0
151	Acid Soluble As (ppm)	0586	7.600	0.2000	8.197	1.746	0.1757	15	-0.34	151.30	0
151	Acid Soluble As (ppm)	0605	7.724	0.5710	8.197	1.746	0.1757	15	-0.27	151.30	0
151	Acid Soluble As (ppm)	0136	7.800	0.2000	8.197	1.746	0.1757	15	-0.23	151.33	0
151	Acid Soluble As (ppm)	0220	8.000	0.0000	8.197	1.746	0.1757	15	-0.11	151.99	0
151	Acid Soluble As (ppm)	0220	8.050	0.1000	8.197	1.746	0.1757	15	-0.08	151.32	0
151	Acid Soluble As (ppm)	0524	8.416	0.1025	8.197	1.746	0.1757	15	0.12	151.30	0
151	Acid Soluble As (ppm)	0572	8.635	0.1609	8.197	1.746	0.1757	15	0.25	151.99	0
151	Acid Soluble As (ppm)	0481	9.270	0.2200	8.197	1.746	0.1757	15	0.61	151.99	0
151	Acid Soluble As (ppm)	0405	10.00	0.0000	8.197	1.746	0.1757	15	1.03	151.32	0
151	Acid Soluble As (ppm)	0368	11.65	0.1000	8.197	1.746	0.1757	15	1.98	151.34	0
151	Acid Soluble As (ppm)	0096	24.80	0.2000	8.197	1.746	0.1757	15	9.51	151.30	0
151	Acid Soluble As (ppm)	0515	5.751	5.511	8.197	1.746	0.1757	15	-1.40	151.34	1
151	Acid Soluble As (ppm)	0255	0.0000	0.0000	8.197	1.746	0.1757	15		151.30	4
151	Acid Soluble As (ppm)	0527	< 0.001		8.197	1.746	0.1757	15		151.33	5
151	Acid Soluble As (ppm)	0485	< 0.2		8.197	1.746	0.1757	15		151.32	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				
165	Acid Soluble B (%)	0542	0.0037	0.0002	0.0126	0.0122	0.0048	8	-0.73	165.99	0
165	Acid Soluble B (%)	0593	0.0052	0.0001	0.0126	0.0122	0.0048	8	-0.61	165.99	0
165	Acid Soluble B (%)	0524	0.0053	0.0001	0.0126	0.0122	0.0048	8	-0.61	165.99	0
165	Acid Soluble B (%)	0422	0.0057	0.0003	0.0126	0.0122	0.0048	8	-0.57	165.30	0
165	Acid Soluble B (%)	0515	0.0057	0.0080	0.0126	0.0122	0.0048	8	-0.57	165.99	0
165	Acid Soluble B (%)	0324	0.0205	0.0150	0.0126	0.0122	0.0048	8	0.65	165.30	0
165	Acid Soluble B (%)	0354	0.0250	0.0100	0.0126	0.0122	0.0048	8	1.02	165.30	0
165	Acid Soluble B (%)	0472	0.0300	0.0000	0.0126	0.0122	0.0048	8	1.43	165.99	0
165	Acid Soluble B (%)	0371	0.0000	0.0000	0.0126	0.0122	0.0048	8		165.30	4
165	Acid Soluble B (%)	0552	0.0000	0.0000	0.0126	0.0122	0.0048	8		165.99	4
165	Acid Soluble B (%)	0423	< 0.01		0.0126	0.0122	0.0048	8		165.99	5
165	Acid Soluble B (%)	0527	< 0.01		0.0126	0.0122	0.0048	8		165.99	5
165	Acid Soluble B (%)	0572	< 0.0104		0.0126	0.0122	0.0048	8		165.99	5
171	Water Soluble B (%)	0572	< 0.0109					0		171.99	5
181	Acid Soluble Cd (ppm)	0513	3.595	0.0900	4.709	0.3720	0.1607	18	-2.99	181.30	0
181	Acid Soluble Cd (ppm)	0485	3.975	0.1500	4.709	0.3720	0.1607	18	-1.97	181.32	0
181	Acid Soluble Cd (ppm)	0481	4.335	0.2300	4.709	0.3720	0.1607	18	-1.00	181.99	0
181	Acid Soluble Cd (ppm)	0494	4.365	0.2100	4.709	0.3720	0.1607	18	-0.92	181.33	0
181	Acid Soluble Cd (ppm)	0136	4.450	0.1000	4.709	0.3720	0.1607	18	-0.70	181.33	0
181	Acid Soluble Cd (ppm)	0524	4.451	0.0744	4.709	0.3720	0.1607	18	-0.69	181.30	0
181	Acid Soluble Cd (ppm)	0220	4.700	0.0000	4.709	0.3720	0.1607	18	-0.02	181.32	0
181	Acid Soluble Cd (ppm)	0220	4.700	0.0000	4.709	0.3720	0.1607	18	-0.02	181.99	0
181	Acid Soluble Cd (ppm)	0572	4.733	0.0632	4.709	0.3720	0.1607	18	0.06	181.99	0
181	Acid Soluble Cd (ppm)	0394	4.810	0.0830	4.709	0.3720	0.1607	18	0.27	181.30	0
181	Acid Soluble Cd (ppm)	0527	4.825	0.1165	4.709	0.3720	0.1607	18	0.31	181.33	0
181	Acid Soluble Cd (ppm)	0593	4.875	0.0100	4.709	0.3720	0.1607	18	0.45	181.30	0
181	Acid Soluble Cd (ppm)	0035	4.880	0.5400	4.709	0.3720	0.1607	18	0.46	181.30	0
181	Acid Soluble Cd (ppm)	0389	4.920	0.1200	4.709	0.3720	0.1607	18	0.57	181.30	0
181	Acid Soluble Cd (ppm)	0368	4.950	0.1000	4.709	0.3720	0.1607	18	0.65	181.34	0
181	Acid Soluble Cd (ppm)	0405	5.000	0.0000	4.709	0.3720	0.1607	18	0.78	181.32	0
181	Acid Soluble Cd (ppm)	0605	5.194	0.7990	4.709	0.3720	0.1607	18	1.30	181.30	0
181	Acid Soluble Cd (ppm)	0586	10.25	0.5000	4.709	0.3720	0.1607	18	14.90	181.30	0
181	Acid Soluble Cd (ppm)	0255	8.338	7.684	4.709	0.3720	0.1607	18	9.76	181.30	1
181	Acid Soluble Cd (ppm)	0515	< 0.133		4.709	0.3720	0.1607	18		181.34	5
181	Acid Soluble Cd (ppm)	0515	< 0.19		4.709	0.3720	0.1607	18		181.33	5
191	Acid Soluble Cr (ppm)	0572	55.31	0.0051	70.14	9.666	2.829	21	-1.53	191.99	0
191	Acid Soluble Cr (ppm)	0494	55.70	2.400	70.14	9.666	2.829	21	-1.49	191.33	0
191	Acid Soluble Cr (ppm)	0515	56.79	4.710	70.14	9.666	2.829	21	-1.38	191.33	0
191	Acid Soluble Cr (ppm)	0513	57.66	3.190	70.14	9.666	2.829	21	-1.29	191.30	0
191	Acid Soluble Cr (ppm)	0515	63.53	5.197	70.14	9.666	2.829	21	-0.68	191.34	0
191	Acid Soluble Cr (ppm)	0524	65.57	0.3183	70.14	9.666	2.829	21	-0.47	191.30	0
191	Acid Soluble Cr (ppm)	0394	67.52	3.796	70.14	9.666	2.829	21	-0.27	191.30	0
191	Acid Soluble Cr (ppm)	0035	68.10	5.200	70.14	9.666	2.829	21	-0.21	191.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		*Robust Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
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191	Acid Soluble Cr (ppm)	0405	70.00	0.0000	70.14	9.666	2.829	21	-0.01	191.32	0
191	Acid Soluble Cr (ppm)	0527	71.63	0.4230	70.14	9.666	2.829	21	0.15	191.33	0
191	Acid Soluble Cr (ppm)	0220	72.20	0.4000	70.14	9.666	2.829	21	0.21	191.32	0
191	Acid Soluble Cr (ppm)	0220	72.20	2.000	70.14	9.666	2.829	21	0.21	191.99	0
191	Acid Soluble Cr (ppm)	0096	73.25	4.500	70.14	9.666	2.829	21	0.32	191.30	0
191	Acid Soluble Cr (ppm)	0136	74.40	6.200	70.14	9.666	2.829	21	0.44	191.33	0
191	Acid Soluble Cr (ppm)	0368	74.70	0.4000	70.14	9.666	2.829	21	0.47	191.34	0
191	Acid Soluble Cr (ppm)	0593	75.35	0.7000	70.14	9.666	2.829	21	0.54	191.30	0
191	Acid Soluble Cr (ppm)	0389	75.65	1.500	70.14	9.666	2.829	21	0.57	191.30	0
191	Acid Soluble Cr (ppm)	0605	75.85	9.010	70.14	9.666	2.829	21	0.59	191.30	0
191	Acid Soluble Cr (ppm)	0586	78.50	1.000	70.14	9.666	2.829	21	0.86	191.30	0
191	Acid Soluble Cr (ppm)	0027	84.10	4.529	70.14	9.666	2.829	21	1.44	191.30	0
191	Acid Soluble Cr (ppm)	0481	85.40	3.600	70.14	9.666	2.829	21	1.58	191.99	0
202	Acid Soluble Co (ppm)	0513	1.495	0.0100	4.676	1.569	0.2253	18	-2.03	202.30	0
202	Acid Soluble Co (ppm)	0096	2.010	0.1800	4.676	1.569	0.2253	18	-1.70	202.30	0
202	Acid Soluble Co (ppm)	0485	2.650	0.5800	4.676	1.569	0.2253	18	-1.29	202.32	0
202	Acid Soluble Co (ppm)	0572	3.746	0.0147	4.676	1.569	0.2253	18	-0.59	202.99	0
202	Acid Soluble Co (ppm)	0542	3.766	0.2720	4.676	1.569	0.2253	18	-0.58	202.30	0
202	Acid Soluble Co (ppm)	0220	4.450	0.1000	4.676	1.569	0.2253	18	-0.14	202.32	0
202	Acid Soluble Co (ppm)	0220	4.500	0.2000	4.676	1.569	0.2253	18	-0.11	202.99	0
202	Acid Soluble Co (ppm)	0593	4.560	0.0400	4.676	1.569	0.2253	18	-0.07	202.30	0
202	Acid Soluble Co (ppm)	0368	4.650	0.1000	4.676	1.569	0.2253	18	-0.02	202.34	0
202	Acid Soluble Co (ppm)	0389	4.860	0.2400	4.676	1.569	0.2253	18	0.12	202.30	0
202	Acid Soluble Co (ppm)	0527	4.940	0.2336	4.676	1.569	0.2253	18	0.17	202.33	0
202	Acid Soluble Co (ppm)	0405	5.000	0.0000	4.676	1.569	0.2253	18	0.21	202.32	0
202	Acid Soluble Co (ppm)	0035	5.130	0.3200	4.676	1.569	0.2253	18	0.29	202.30	0
202	Acid Soluble Co (ppm)	0136	5.300	0.4000	4.676	1.569	0.2253	18	0.40	202.33	0
202	Acid Soluble Co (ppm)	0605	5.462	0.7070	4.676	1.569	0.2253	18	0.50	202.30	0
202	Acid Soluble Co (ppm)	0524	6.449	0.0154	4.676	1.569	0.2253	18	1.13	202.30	0
202	Acid Soluble Co (ppm)	0586	8.500	1.000	4.676	1.569	0.2253	18	2.44	202.30	0
202	Acid Soluble Co (ppm)	0423	8.535	0.0100	4.676	1.569	0.2253	18	2.46	202.32	0
202	Acid Soluble Co (ppm)	0255	13.76	22.86	4.676	1.569	0.2253	18	5.79	202.99	1
202	Acid Soluble Co (ppm)	0515	< 0.139		4.676	1.569	0.2253	18		202.34	5
202	Acid Soluble Co (ppm)	0515	< 0.26		4.676	1.569	0.2253	18		202.33	5
221	Acid Soluble Cu (%)	0422	0.0002	0.0000	0.0006	0.0003	0.0002	13	-1.30	221.30	0
221	Acid Soluble Cu (%)	0524	0.0003	0.0000	0.0006	0.0003	0.0002	13	-0.94	221.99	0
221	Acid Soluble Cu (%)	0405	0.0004	0.0000	0.0006	0.0003	0.0002	13	-0.57	221.32	0
221	Acid Soluble Cu (%)	0527	0.0004	0.0000	0.0006	0.0003	0.0002	13	-0.57	221.33	0
221	Acid Soluble Cu (%)	0542	0.0004	0.0000	0.0006	0.0003	0.0002	13	-0.57	221.99	0
221	Acid Soluble Cu (%)	0394	0.0005	0.0001	0.0006	0.0003	0.0002	13	-0.39	221.33	0
221	Acid Soluble Cu (%)	0572	0.0005	0.0000	0.0006	0.0003	0.0002	13	-0.21	221.99	0
221	Acid Soluble Cu (%)	0136	0.0006	0.0001	0.0006	0.0003	0.0002	13	-0.02	221.33	0
221	Acid Soluble Cu (%)	0593	0.0006	0.0000	0.0006	0.0003	0.0002	13	0.16	221.99	0

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			Value	Range	Rob Mean	Rob SD	Rob R-bar				
221	Acid Soluble Cu (%)	0035	0.0007	0.0002	0.0006	0.0003	0.0002	13	0.52	221.30	0
221	Acid Soluble Cu (%)	0368	0.0008	0.0002	0.0006	0.0003	0.0002	13	0.89	221.99	0
221	Acid Soluble Cu (%)	0402	0.0026	0.0004	0.0006	0.0003	0.0002	13	7.47	221.30	0
221	Acid Soluble Cu (%)	0389	0.0030	0.0000	0.0006	0.0003	0.0002	13	8.93	221.99	0
221	Acid Soluble Cu (%)	0255	0.0000	0.0000	0.0006	0.0003	0.0002	13		221.30	4
221	Acid Soluble Cu (%)	0324	0.0000	0.0000	0.0006	0.0003	0.0002	13		221.30	4
221	Acid Soluble Cu (%)	0371	0.0000	0.0000	0.0006	0.0003	0.0002	13		221.30	4
221	Acid Soluble Cu (%)	0106	0.0000	0.0000	0.0006	0.0003	0.0002	13		221.33	4
221	Acid Soluble Cu (%)	0586	0.0000	0.0000	0.0006	0.0003	0.0002	13		221.99	4
221	Acid Soluble Cu (%)	0552	0.0300	0.0600	0.0006	0.0003	0.0002	13		221.30	4
221	Acid Soluble Cu (%)	0423	< 0.001		0.0006	0.0003	0.0002	13		221.32	5
221	Acid Soluble Cu (%)	0481	< 0.001		0.0006	0.0003	0.0002	13		221.99	5
221	Acid Soluble Cu (%)	0553	< 0.005		0.0006	0.0003	0.0002	13		221.00	5
221	Acid Soluble Cu (%)	0354	< 0.01		0.0006	0.0003	0.0002	13		221.30	5
241	Acid Soluble Fe (%)	0542	0.9547	0.0185	1.230	0.0882	0.0356	18	-3.12	241.99	0
241	Acid Soluble Fe (%)	0515	1.029	0.0310	1.230	0.0882	0.0356	18	-2.28	241.33	0
241	Acid Soluble Fe (%)	0515	1.109	0.0110	1.230	0.0882	0.0356	18	-1.37	241.99	0
241	Acid Soluble Fe (%)	0423	1.180	0.0000	1.230	0.0882	0.0356	18	-0.56	241.32	0
241	Acid Soluble Fe (%)	0371	1.195	0.0500	1.230	0.0882	0.0356	18	-0.39	241.30	0
241	Acid Soluble Fe (%)	0494	1.196	0.1274	1.230	0.0882	0.0356	18	-0.38	241.33	0
241	Acid Soluble Fe (%)	0095	1.210	0.0000	1.230	0.0882	0.0356	18	-0.22	241.32	0
241	Acid Soluble Fe (%)	0324	1.215	0.0500	1.230	0.0882	0.0356	18	-0.17	241.30	0
241	Acid Soluble Fe (%)	0354	1.240	0.0200	1.230	0.0882	0.0356	18	0.12	241.30	0
241	Acid Soluble Fe (%)	0096	1.245	0.0500	1.230	0.0882	0.0356	18	0.17	241.30	0
241	Acid Soluble Fe (%)	0472	1.250	0.0000	1.230	0.0882	0.0356	18	0.23	241.33	0
241	Acid Soluble Fe (%)	0035	1.260	0.0800	1.230	0.0882	0.0356	18	0.34	241.30	0
241	Acid Soluble Fe (%)	0593	1.260	0.0000	1.230	0.0882	0.0356	18	0.34	241.99	0
241	Acid Soluble Fe (%)	0572	1.264	0.0478	1.230	0.0882	0.0356	18	0.39	241.99	0
241	Acid Soluble Fe (%)	0524	1.279	0.0085	1.230	0.0882	0.0356	18	0.56	241.99	0
241	Acid Soluble Fe (%)	0527	1.312	0.0123	1.230	0.0882	0.0356	18	0.94	241.33	0
241	Acid Soluble Fe (%)	0422	1.401	0.0050	1.230	0.0882	0.0356	18	1.94	241.30	0
241	Acid Soluble Fe (%)	0581	1.810	0.0000	1.230	0.0882	0.0356	18	6.58	241.32	0
241	Acid Soluble Fe (%)	0552	0.6050	1.210	1.230	0.0882	0.0356	18		241.30	4
251	Acid Soluble Pb (ppm)	0524	0.7230	0.0186	2.740	2.381	0.1164	10	-0.85	251.30	0
251	Acid Soluble Pb (ppm)	0572	0.9025	0.0163	2.740	2.381	0.1164	10	-0.77	251.99	0
251	Acid Soluble Pb (ppm)	0527	0.9391	0.0035	2.740	2.381	0.1164	10	-0.76	251.33	0
251	Acid Soluble Pb (ppm)	0593	0.9450	0.0500	2.740	2.381	0.1164	10	-0.75	251.30	0
251	Acid Soluble Pb (ppm)	0394	1.026	0.0210	2.740	2.381	0.1164	10	-0.72	251.30	0
251	Acid Soluble Pb (ppm)	0368	2.850	0.3000	2.740	2.381	0.1164	10	0.05	251.34	0
251	Acid Soluble Pb (ppm)	0220	4.450	0.1000	2.740	2.381	0.1164	10	0.72	251.99	0
251	Acid Soluble Pb (ppm)	0220	4.500	0.0000	2.740	2.381	0.1164	10	0.74	251.32	0
251	Acid Soluble Pb (ppm)	0586	4.750	1.500	2.740	2.381	0.1164	10	0.84	251.30	0
251	Acid Soluble Pb (ppm)	0096	7.100	0.2000	2.740	2.381	0.1164	10	1.83	251.30	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				
251	Acid Soluble Pb (ppm)	0515	4.688	3.056	2.740	2.381	0.1164	10	0.82	251.34	1
251	Acid Soluble Pb (ppm)	0255	0.0000	0.0000	2.740	2.381	0.1164	10		251.30	4
251	Acid Soluble Pb (ppm)	0485	< 0.2		2.740	2.381	0.1164	10		251.32	5
251	Acid Soluble Pb (ppm)	0515	< 0.21		2.740	2.381	0.1164	10		251.33	5
251	Acid Soluble Pb (ppm)	0481	< 2		2.740	2.381	0.1164	10		251.99	5
251	Acid Soluble Pb (ppm)	0136	< 3		2.740	2.381	0.1164	10		251.33	5
251	Acid Soluble Pb (ppm)	0405	< 4		2.740	2.381	0.1164	10		251.32	5
251	Acid Soluble Pb (ppm)	0605	< 5		2.740	2.381	0.1164	10		251.30	5
261	Acid Soluble Mn (%)	0515	0.0070	0.0005	0.0374	0.0050	0.0009	15	-6.06	261.35	0
261	Acid Soluble Mn (%)	0423	0.0285	0.0010	0.0374	0.0050	0.0009	15	-1.77	261.34	0
261	Acid Soluble Mn (%)	0542	0.0309	0.0006	0.0374	0.0050	0.0009	15	-1.29	261.99	0
261	Acid Soluble Mn (%)	0572	0.0312	0.0005	0.0374	0.0050	0.0009	15	-1.24	261.99	0
261	Acid Soluble Mn (%)	0422	0.0384	0.0001	0.0374	0.0050	0.0009	15	0.19	261.30	0
261	Acid Soluble Mn (%)	0324	0.0385	0.0010	0.0374	0.0050	0.0009	15	0.22	261.31	0
261	Acid Soluble Mn (%)	0593	0.0395	0.0010	0.0374	0.0050	0.0009	15	0.42	261.99	0
261	Acid Soluble Mn (%)	0096	0.0398	0.0012	0.0374	0.0050	0.0009	15	0.48	261.30	0
261	Acid Soluble Mn (%)	0354	0.0400	0.0000	0.0374	0.0050	0.0009	15	0.52	261.30	0
261	Acid Soluble Mn (%)	0371	0.0400	0.0000	0.0374	0.0050	0.0009	15	0.52	261.32	0
261	Acid Soluble Mn (%)	0095	0.0400	0.0000	0.0374	0.0050	0.0009	15	0.52	261.34	0
261	Acid Soluble Mn (%)	0472	0.0400	0.0000	0.0374	0.0050	0.0009	15	0.52	261.35	0
261	Acid Soluble Mn (%)	0524	0.0401	0.0016	0.0374	0.0050	0.0009	15	0.54	261.99	0
261	Acid Soluble Mn (%)	0527	0.0415	0.0001	0.0374	0.0050	0.0009	15	0.81	261.35	0
261	Acid Soluble Mn (%)	0035	0.0415	0.0030	0.0374	0.0050	0.0009	15	0.82	261.30	0
261	Acid Soluble Mn (%)	0552	0.0050	0.0100	0.0374	0.0050	0.0009	15		261.32	4
281	Acid Soluble Hg (ppm)	0524	0.0022	0.0001				2		281.99	0
281	Acid Soluble Hg (ppm)	0220	0.0150	0.0100				2		281.99	0
281	Acid Soluble Hg (ppm)	0527	< 0.001					2		281.30	5
281	Acid Soluble Hg (ppm)	0572	< 0.009					2		281.99	5
281	Acid Soluble Hg (ppm)	0515	< 0.1					2		281.30	5
281	Acid Soluble Hg (ppm)	0481	< 0.5					2		281.00	5
281	Acid Soluble Hg (ppm)	0605	< 1.25					2		281.30	5
281	Acid Soluble Hg (ppm)	0405	< 2					2		281.30	5
289	Acid Soluble Mo (ppm)	0106	0.0012	0.0001	10.29	2.459	0.5769	20	-4.18	289.33	0
289	Acid Soluble Mo (ppm)	0485	1.450	1.161	10.29	2.459	0.5769	20	-3.59	289.32	0
289	Acid Soluble Mo (ppm)	0423	6.790	0.0400	10.29	2.459	0.5769	20	-1.42	289.33	0
289	Acid Soluble Mo (ppm)	0542	7.957	0.5730	10.29	2.459	0.5769	20	-0.95	289.30	0
289	Acid Soluble Mo (ppm)	0035	8.590	1.940	10.29	2.459	0.5769	20	-0.69	289.30	0
289	Acid Soluble Mo (ppm)	0513	8.970	0.0200	10.29	2.459	0.5769	20	-0.54	289.30	0
289	Acid Soluble Mo (ppm)	0255	9.006	0.7920	10.29	2.459	0.5769	20	-0.52	289.30	0
289	Acid Soluble Mo (ppm)	0027	9.865	0.1700	10.29	2.459	0.5769	20	-0.17	289.30	0
289	Acid Soluble Mo (ppm)	0220	10.90	0.4000	10.29	2.459	0.5769	20	0.25	289.99	0
289	Acid Soluble Mo (ppm)	0220	10.90	0.2000	10.29	2.459	0.5769	20	0.25	289.32	0
289	Acid Soluble Mo (ppm)	0402	11.00	2.000	10.29	2.459	0.5769	20	0.29	289.30	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				
289	Acid Soluble Mo (ppm)	0136	11.05	0.9000	10.29	2.459	0.5769	20	0.31	289.33	0
289	Acid Soluble Mo (ppm)	0524	11.06	0.0279	10.29	2.459	0.5769	20	0.32	289.30	0
289	Acid Soluble Mo (ppm)	0572	11.30	0.3403	10.29	2.459	0.5769	20	0.41	289.99	0
289	Acid Soluble Mo (ppm)	0527	11.42	0.5179	10.29	2.459	0.5769	20	0.46	289.33	0
289	Acid Soluble Mo (ppm)	0405	11.50	1.000	10.29	2.459	0.5769	20	0.49	289.32	0
289	Acid Soluble Mo (ppm)	0593	12.70	0.2000	10.29	2.459	0.5769	20	0.98	289.30	0
289	Acid Soluble Mo (ppm)	0096	12.75	1.900	10.29	2.459	0.5769	20	1.00	289.30	0
289	Acid Soluble Mo (ppm)	0368	12.80	0.2000	10.29	2.459	0.5769	20	1.02	289.34	0
289	Acid Soluble Mo (ppm)	0586	15.00	0.0000	10.29	2.459	0.5769	20	1.92	289.30	0
289	Acid Soluble Mo (ppm)	0515	< 0.178		10.29	2.459	0.5769	20		289.34	5
289	Acid Soluble Mo (ppm)	0515	< 0.23		10.29	2.459	0.5769	20		289.33	5
291	Acid Soluble Ni (ppm)	0515	3.602	0.9090	18.15	3.242	0.7327	21	-4.49	291.33	0
291	Acid Soluble Ni (ppm)	0515	9.208	6.985	18.15	3.242	0.7327	21	-2.76	291.34	0
291	Acid Soluble Ni (ppm)	0513	13.98	0.0800	18.15	3.242	0.7327	21	-1.29	291.30	0
291	Acid Soluble Ni (ppm)	0485	14.40	0.8000	18.15	3.242	0.7327	21	-1.16	291.32	0
291	Acid Soluble Ni (ppm)	0542	14.48	0.6100	18.15	3.242	0.7327	21	-1.13	291.30	0
291	Acid Soluble Ni (ppm)	0572	15.55	0.3803	18.15	3.242	0.7327	21	-0.80	291.99	0
291	Acid Soluble Ni (ppm)	0027	17.90	0.7720	18.15	3.242	0.7327	21	-0.08	291.30	0
291	Acid Soluble Ni (ppm)	0389	18.30	0.4000	18.15	3.242	0.7327	21	0.05	291.30	0
291	Acid Soluble Ni (ppm)	0524	18.47	0.0267	18.15	3.242	0.7327	21	0.10	291.30	0
291	Acid Soluble Ni (ppm)	0220	18.50	0.6000	18.15	3.242	0.7327	21	0.11	291.99	0
291	Acid Soluble Ni (ppm)	0394	18.71	0.9940	18.15	3.242	0.7327	21	0.17	291.30	0
291	Acid Soluble Ni (ppm)	0220	18.90	1.200	18.15	3.242	0.7327	21	0.23	291.32	0
291	Acid Soluble Ni (ppm)	0368	18.95	0.7000	18.15	3.242	0.7327	21	0.25	291.34	0
291	Acid Soluble Ni (ppm)	0136	19.75	1.100	18.15	3.242	0.7327	21	0.49	291.33	0
291	Acid Soluble Ni (ppm)	0527	19.98	0.3686	18.15	3.242	0.7327	21	0.56	291.33	0
291	Acid Soluble Ni (ppm)	0405	20.00	0.0000	18.15	3.242	0.7327	21	0.57	291.32	0
291	Acid Soluble Ni (ppm)	0035	20.15	0.1000	18.15	3.242	0.7327	21	0.62	291.30	0
291	Acid Soluble Ni (ppm)	0605	21.11	2.557	18.15	3.242	0.7327	21	0.91	291.30	0
291	Acid Soluble Ni (ppm)	0586	21.50	1.000	18.15	3.242	0.7327	21	1.03	291.30	0
291	Acid Soluble Ni (ppm)	0096	21.90	1.400	18.15	3.242	0.7327	21	1.16	291.30	0
291	Acid Soluble Ni (ppm)	0593	22.05	0.1000	18.15	3.242	0.7327	21	1.20	291.30	0
291	Acid Soluble Ni (ppm)	0255	56.01	33.33	18.15	3.242	0.7327	21	11.68	291.99	1
301	Acid Soluble Se (ppm)	0593	0.0100	0.0000	0.6978	0.9433	0.1016	3	-0.73	301.30	0
301	Acid Soluble Se (ppm)	0524	0.3102	0.0141	0.6978	0.9433	0.1016	3	-0.41	301.30	0
301	Acid Soluble Se (ppm)	0572	1.773	0.1891	0.6978	0.9433	0.1016	3	1.14	301.99	0
301	Acid Soluble Se (ppm)	0255	0.0000	0.0000	0.6978	0.9433	0.1016	3		301.99	4
301	Acid Soluble Se (ppm)	0527	< 0.01		0.6978	0.9433	0.1016	3		301.33	5
301	Acid Soluble Se (ppm)	0515	< 0.226		0.6978	0.9433	0.1016	3		301.34	5
301	Acid Soluble Se (ppm)	0515	< 0.27		0.6978	0.9433	0.1016	3		301.33	5
301	Acid Soluble Se (ppm)	0220	< 0.3		0.6978	0.9433	0.1016	3		301.32	5
301	Acid Soluble Se (ppm)	0220	< 0.3		0.6978	0.9433	0.1016	3		301.99	5
301	Acid Soluble Se (ppm)	0481	< 0.5		0.6978	0.9433	0.1016	3		301.99	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				
301	Acid Soluble Se (ppm)	0368	< 1.4		0.6978	0.9433	0.1016	3		301.34	5
301	Acid Soluble Se (ppm)	0605	< 1.65		0.6978	0.9433	0.1016	3		301.30	5
301	Acid Soluble Se (ppm)	0405	< 10		0.6978	0.9433	0.1016	3		301.32	5
311	Sodium (%)	0542	0.1042	0.0008	0.1405	0.0380	0.0059	8	-0.87	311.99	0
311	Sodium (%)	0423	0.1100	0.0000	0.1405	0.0380	0.0059	8	-0.73	311.33	0
311	Sodium (%)	0572	0.1119	0.0004	0.1405	0.0380	0.0059	8	-0.69	311.99	0
311	Sodium (%)	0422	0.1253	0.0002	0.1405	0.0380	0.0059	8	-0.37	311.32	0
311	Sodium (%)	0527	0.1475	0.0023	0.1405	0.0380	0.0059	8	0.17	311.33	0
311	Sodium (%)	0494	0.1540	0.0141	0.1405	0.0380	0.0059	8	0.32	311.33	0
311	Sodium (%)	0035	0.1735	0.0050	0.1405	0.0380	0.0059	8	0.79	311.33	0
311	Sodium (%)	0354	0.2200	0.0200	0.1405	0.0380	0.0059	8	1.91	311.99	0
311	Sodium (%)	0096	0.1850	0.0500	0.1405	0.0380	0.0059	8	1.07	311.99	1
321	Acid Soluble Zn (%)	0485	0.0032	0.0004	0.0077	0.0028	0.0006	25	-1.62	321.32	0
321	Acid Soluble Zn (%)	0106	0.0050	0.0000	0.0077	0.0028	0.0006	25	-0.98	321.33	0
321	Acid Soluble Zn (%)	0542	0.0051	0.0002	0.0077	0.0028	0.0006	25	-0.94	321.99	0
321	Acid Soluble Zn (%)	0515	0.0053	0.0003	0.0077	0.0028	0.0006	25	-0.89	321.33	0
321	Acid Soluble Zn (%)	0572	0.0054	0.0001	0.0077	0.0028	0.0006	25	-0.85	321.99	0
321	Acid Soluble Zn (%)	0255	0.0060	0.0000	0.0077	0.0028	0.0006	25	-0.62	321.30	0
321	Acid Soluble Zn (%)	0405	0.0062	0.0004	0.0077	0.0028	0.0006	25	-0.55	321.32	0
321	Acid Soluble Zn (%)	0027	0.0065	0.0010	0.0077	0.0028	0.0006	25	-0.44	321.99	0
321	Acid Soluble Zn (%)	0136	0.0066	0.0005	0.0077	0.0028	0.0006	25	-0.42	321.33	0
321	Acid Soluble Zn (%)	0422	0.0066	0.0000	0.0077	0.0028	0.0006	25	-0.40	321.30	0
321	Acid Soluble Zn (%)	0524	0.0067	0.0003	0.0077	0.0028	0.0006	25	-0.38	321.99	0
321	Acid Soluble Zn (%)	0220	0.0068	0.0003	0.0077	0.0028	0.0006	25	-0.35	321.32	0
321	Acid Soluble Zn (%)	0368	0.0068	0.0012	0.0077	0.0028	0.0006	25	-0.33	321.99	0
321	Acid Soluble Zn (%)	0035	0.0070	0.0000	0.0077	0.0028	0.0006	25	-0.26	321.30	0
321	Acid Soluble Zn (%)	0371	0.0070	0.0000	0.0077	0.0028	0.0006	25	-0.26	321.30	0
321	Acid Soluble Zn (%)	0394	0.0073	0.0001	0.0077	0.0028	0.0006	25	-0.17	321.33	0
321	Acid Soluble Zn (%)	0402	0.0086	0.0001	0.0077	0.0028	0.0006	25	0.30	321.30	0
321	Acid Soluble Zn (%)	0324	0.0095	0.0030	0.0077	0.0028	0.0006	25	0.64	321.30	0
321	Acid Soluble Zn (%)	0095	0.0100	0.0000	0.0077	0.0028	0.0006	25	0.82	321.32	0
321	Acid Soluble Zn (%)	0472	0.0100	0.0000	0.0077	0.0028	0.0006	25	0.82	321.33	0
321	Acid Soluble Zn (%)	0593	0.0100	0.0000	0.0077	0.0028	0.0006	25	0.82	321.33	0
321	Acid Soluble Zn (%)	0096	0.0117	0.0012	0.0077	0.0028	0.0006	25	1.43	321.30	0
321	Acid Soluble Zn (%)	0423	0.0130	0.0000	0.0077	0.0028	0.0006	25	1.90	321.32	0
321	Acid Soluble Zn (%)	0389	0.0645	0.0010	0.0077	0.0028	0.0006	25	20.41	321.99	0
321	Acid Soluble Zn (%)	0552	0.1650	0.2100	0.0077	0.0028	0.0006	25	56.53	321.30	0
321	Acid Soluble Zn (%)	0586	39.00	10.00	0.0077	0.0028	0.0006	25	14013.44	321.99	1
321	Acid Soluble Zn (%)	0527	< 0.001		0.0077	0.0028	0.0006	25		321.33	5
321	Acid Soluble Zn (%)	0354	< 0.01		0.0077	0.0028	0.0006	25		321.30	5
321	Acid Soluble Zn (%)	0481	< 0.01		0.0077	0.0028	0.0006	25		321.99	5
325	Water Soluble Zn (%)	0572	0.0017	0.0001				1		325.99	0
431	Soluble Si in nonliquids (%)	0572	< 0.007					0		431.99	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				

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.