

Analyte PT For All Labs

Magruder Fertilizer Proficiency Testing Program

Analytes: 36

Sample # 221111

Regular PT Scheme

Labs Reporting: 90

7-12-27 w/S&Mg

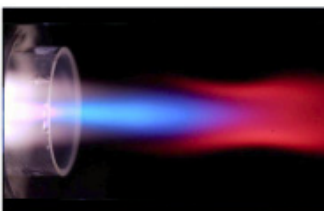
Statistical Summary

Issue Date : 12/31/2022

Analyte Code	Analyte Sample # 221111	# 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 (%)	28	27	0.7337	0.1510	0.7379		0.1725	0.0415	23.38%		0.0366	4.19%
002	Nitrate N (%)	22	21	6.715	0.3795	6.675		0.2683	0.0732	4.02%		0.0672	3.01%
005	Urea N (%)	1		0.0170									
009	Ammoniacal Plus Nitrate N (%)	1		7.750									
010	Total N (7%)	77	75	7.366	0.6149	7.439	0.5444	0.4447	0.0642	5.98%	1.90	0.1308	2.96%
020	Total P2O5 (%)	46	44	12.09	1.861	12.35		0.4419	0.0833	3.58%		0.1315	2.74%
030	Citrate Insoluble P2O5 (%)	1		0.0000									
040	Indirect Available P2O5 (12%)	2	2	12.50	0.1414								
041	Direct Available P2O5 (12%)	48	48	12.38	0.4521	12.39	0.6920	0.3743	0.0675	3.02%	1.26	0.2173	2.74%
048	Water Soluble P2O5 (%)	7	6	12.35	0.1687	12.35		0.2095	0.1069	1.70%		0.0527	2.74%
050	Soluble K2O (27%)	86	84	27.71	3.583	27.40	1.3119	0.6723	0.0917	2.45%	1.19	0.3655	1.91%
060	Water (Free) (%)	2	2	1.196	1.278								
101	Acid Soluble Ca (%)	10	8	0.0937	0.1309	0.0935	0.2047	0.1015	0.0448	108.51%	1.16	0.0095	5.71%
121	Acid Soluble Mg (5%)	61	60	5.322	0.9953	5.272	0.4636	0.2862	0.0462	5.43%	1.44	0.1252	3.11%
131	Water Soluble Mg (%)	3	3	5.115	0.1050	5.115		0.1050	0.0758	2.05%		0.0700	3.13%
143	Elemental S (%)	6	5	5.904	2.912	5.624		3.164	1.769	56.25%		0.0591	3.08%
145	Sulfate S, HCl soluble (%)	6	6	6.869	0.1682	6.869		0.1907	0.0973	2.78%		0.1562	2.99%
146	Total S in Liquid (6.5%)	1		6.850									
148	Total S (6.5%)	52	51	6.610	1.319	6.764	0.5382	0.4326	0.0757	6.40%	1.87	0.1462	3.00%
149	S - HNO3 soluble (%)	5	5	6.741	0.1791	6.741		0.1791	0.1001	2.66%		0.0526	3.00%
151	Acid Soluble As (ppm)	13	4	1.214	1.598	1.039		1.706	1.066	164.20%		0.1270	15.90%
165	Acid Soluble B (%)	8	5	0.0123	0.0184	0.0061	0.0039	0.0078	0.0044	127.38%	4.64	0.0000	8.61%
181	Acid Soluble Cd (ppm)	16	5	0.6922	1.409	1.129		2.475	1.384	219.31%		1.432	15.71%
190	Water Soluble Cl (%)	1		0.1000									
191	Acid Soluble Cr (ppm)	17	12	4.280	6.446	1.747		1.009	0.3640	57.74%		0.0860	14.71%
202	Acid Soluble Co (ppm)	13	5	4.126	8.552	0.2404	1.0721	0.2963	0.1657	123.29%	0.64	0.2709	19.82%
221	Acid Soluble Cu (%)	20	11	0.1387	0.5913	0.0021	0.0052	0.0026	0.0010	122.90%	1.15	0.0026	10.12%
241	Acid Soluble Fe (%)	9	6	0.0179	0.0334	0.0038	0.0054	0.0018	0.0009	48.19%	0.79	0.0019	9.25%
251	Acid Soluble Pb (ppm)	16	6	1.301	1.746	0.2086		0.2408	0.1229	115.47%		0.1882	20.25%

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261	Acid Soluble Mn (%)	9	6	0.0116	0.0198	0.0009	0.0051	0.0003	0.0002	35.69%	0.15	0.0017	11.46%
281	Acid Soluble Hg (ppm)	9	4	0.2829	0.6643	0.0038		0.0042	0.0026	112.21%		0.0007	22.00%
289	Acid Soluble Mo (ppm)	14	8	1.129	1.113	0.5414	1.1624	0.2141	0.0946	39.55%	0.43	0.1332	17.54%
291	Acid Soluble Ni (ppm)	13	8	3.900	8.266	0.8754		0.3832	0.1694	43.77%		0.2278	16.32%
301	Acid Soluble Se (ppm)	12	4	2.989	6.606	0.3320		0.5332	0.3332	160.58%		0.0703	18.88%
311	Sodium (%)	8	8	0.0674	0.0131	0.0657	0.0116	0.0103	0.0046	15.71%	2.08	0.0033	6.03%
321	Acid Soluble Zn (%)	17	6	2.457	9.985	0.0006	0.0051	0.0006	0.0003	95.18%	0.28	0.0000	12.09%

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 # 221111

Regular PT Scheme

Labs Reporting: 90

7-12-27 w/S&Mg

Lab Values

Issue Date : 12/31/2022

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
001	Ammoniacal N (%)	0540	0.4985	0.0070	0.7379	0.1725	0.0366	27	-1.39	001.99	0
001	Ammoniacal N (%)	0532	0.5250	0.0300	0.7379	0.1725	0.0366	27	-1.23	001.99	0
001	Ammoniacal N (%)	0558	0.5477	0.0089	0.7379	0.1725	0.0366	27	-1.10	001.99	0
001	Ammoniacal N (%)	0220	0.5550	0.0300	0.7379	0.1725	0.0366	27	-1.06	001.99	0
001	Ammoniacal N (%)	0559	0.5550	0.0100	0.7379	0.1725	0.0366	27	-1.06	001.99	0
001	Ammoniacal N (%)	0560	0.5600	0.0200	0.7379	0.1725	0.0366	27	-1.03	001.99	0
001	Ammoniacal N (%)	0600	0.5750	0.0500	0.7379	0.1725	0.0366	27	-0.94	001.99	0
001	Ammoniacal N (%)	0565	0.5850	0.0100	0.7379	0.1725	0.0366	27	-0.89	001.99	0
001	Ammoniacal N (%)	0564	0.5900	0.0200	0.7379	0.1725	0.0366	27	-0.86	001.99	0
001	Ammoniacal N (%)	0230	0.6100	0.0000	0.7379	0.1725	0.0366	27	-0.74	001.10	0
001	Ammoniacal N (%)	0368	0.6720	0.0200	0.7379	0.1725	0.0366	27	-0.38	001.99	0
001	Ammoniacal N (%)	0553	0.7200	0.0200	0.7379	0.1725	0.0366	27	-0.10	001.99	0
001	Ammoniacal N (%)	0389	0.7750	0.0100	0.7379	0.1725	0.0366	27	0.22	001.10	0
001	Ammoniacal N (%)	0513	0.7900	0.0200	0.7379	0.1725	0.0366	27	0.30	001.99	0
001	Ammoniacal N (%)	0451	0.8150	0.0100	0.7379	0.1725	0.0366	27	0.45	001.10	0
001	Ammoniacal N (%)	0580	0.8150	0.0700	0.7379	0.1725	0.0366	27	0.45	001.10	0
001	Ammoniacal N (%)	0394	0.8290	0.0120	0.7379	0.1725	0.0366	27	0.53	001.99	0
001	Ammoniacal N (%)	0027	0.8300	0.0200	0.7379	0.1725	0.0366	27	0.53	001.99	0
001	Ammoniacal N (%)	0545	0.8350	0.0100	0.7379	0.1725	0.0366	27	0.56	001.99	0
001	Ammoniacal N (%)	0255	0.8745	0.0330	0.7379	0.1725	0.0366	27	0.79	001.99	0
001	Ammoniacal N (%)	0498	0.8750	0.0100	0.7379	0.1725	0.0366	27	0.79	001.10	0
001	Ammoniacal N (%)	0300	0.8950	0.0500	0.7379	0.1725	0.0366	27	0.91	001.99	0
001	Ammoniacal N (%)	0510	0.8979	0.0543	0.7379	0.1725	0.0366	27	0.93	001.99	0
001	Ammoniacal N (%)	0444	0.9000	0.2000	0.7379	0.1725	0.0366	27	0.94	001.10	0
001	Ammoniacal N (%)	0405	0.9000	0.0000	0.7379	0.1725	0.0366	27	0.94	001.99	0
001	Ammoniacal N (%)	0563	0.9400	0.0400	0.7379	0.1725	0.0366	27	1.17	001.99	0
001	Ammoniacal N (%)	0524	0.9580	0.2240	0.7379	0.1725	0.0366	27	1.28	001.99	0
001	Ammoniacal N (%)	0587	0.6200	0.2400	0.7379	0.1725	0.0366	27	-0.68	001.10	1
002	Nitrate N (%)	0368	6.055	0.0120	6.675	0.2683	0.0672	21	-2.31	002.99	0
002	Nitrate N (%)	0553	6.435	0.3500	6.675	0.2683	0.0672	21	-0.89	002.99	0
002	Nitrate N (%)	0533	6.485	0.0700	6.675	0.2683	0.0672	21	-0.71	002.99	0
002	Nitrate N (%)	0540	6.490	0.0200	6.675	0.2683	0.0672	21	-0.69	002.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
002	Nitrate N (%)	0563	6.510	0.0200	6.675	0.2683	0.0672	21	-0.61	002.20	0
002	Nitrate N (%)	0532	6.515	0.0700	6.675	0.2683	0.0672	21	-0.60	002.99	0
002	Nitrate N (%)	0560	6.520	0.0200	6.675	0.2683	0.0672	21	-0.58	002.99	0
002	Nitrate N (%)	0394	6.554	0.0250	6.675	0.2683	0.0672	21	-0.45	002.99	0
002	Nitrate N (%)	0558	6.563	0.0429	6.675	0.2683	0.0672	21	-0.42	002.99	0
002	Nitrate N (%)	0029	6.591	0.0210	6.675	0.2683	0.0672	21	-0.31	002.20	0
002	Nitrate N (%)	0230	6.600	0.0000	6.675	0.2683	0.0672	21	-0.28	002.99	0
002	Nitrate N (%)	0564	6.620	0.0600	6.675	0.2683	0.0672	21	-0.20	002.99	0
002	Nitrate N (%)	0565	6.640	0.0400	6.675	0.2683	0.0672	21	-0.13	002.99	0
002	Nitrate N (%)	0600	6.650	0.1000	6.675	0.2683	0.0672	21	-0.09	002.99	0
002	Nitrate N (%)	0559	6.695	0.0100	6.675	0.2683	0.0672	21	0.08	002.99	0
002	Nitrate N (%)	0444	6.850	0.1000	6.675	0.2683	0.0672	21	0.65	002.99	0
002	Nitrate N (%)	0423	6.900	0.1200	6.675	0.2683	0.0672	21	0.84	002.99	0
002	Nitrate N (%)	0587	7.050	0.1600	6.675	0.2683	0.0672	21	1.40	002.99	0
002	Nitrate N (%)	0027	7.090	0.1000	6.675	0.2683	0.0672	21	1.55	002.99	0
002	Nitrate N (%)	0513	7.440	0.0200	6.675	0.2683	0.0672	21	2.85	002.99	0
002	Nitrate N (%)	0545	7.875	0.0500	6.675	0.2683	0.0672	21	4.47	002.99	0
002	Nitrate N (%)	0498	6.600	0.4000	6.675	0.2683	0.0672	21	-0.28	002.99	1
005	Urea N (%)	0524	0.0170	0.0060				1		005.99	0
009	Ammoniacal Plus Nitrate N (%)	0444	7.750	0.1000				1		009.10	0
010	Total N (7%)	0422	4.195†	0.1700	7.439	0.4447	0.1308	75	-7.29	010.60	0
010	Total N (7%)	0042	5.400†	0.2000	7.439	0.4447	0.1308	75	-4.58	010.60	0
010	Total N (7%)	0035	6.500†	0.0000	7.439	0.4447	0.1308	75	-2.11	010.60	0
010	Total N (7%)	0501	6.502†	0.7170	7.439	0.4447	0.1308	75	-2.11	010.60	0
010	Total N (7%)	0360	6.630†	0.5800	7.439	0.4447	0.1308	75	-1.82	010.60	0
010	Total N (7%)	0577	6.680†	0.2000	7.439	0.4447	0.1308	75	-1.71	010.99	0
010	Total N (7%)	0324	6.690†	0.0200	7.439	0.4447	0.1308	75	-1.68	010.60	0
010	Total N (7%)	0234	6.775†	0.1900	7.439	0.4447	0.1308	75	-1.49	010.60	0
010	Total N (7%)	0073	6.960	0.1200	7.439	0.4447	0.1308	75	-1.08	010.60	0
010	Total N (7%)	0534	6.970	0.0000	7.439	0.4447	0.1308	75	-1.05	010.60	0
010	Total N (7%)	0423	6.995	0.0700	7.439	0.4447	0.1308	75	-1.00	010.60	0
010	Total N (7%)	0540	7.005	0.0300	7.439	0.4447	0.1308	75	-0.97	010.11	0
010	Total N (7%)	0415	7.015	0.0021	7.439	0.4447	0.1308	75	-0.95	010.12	0
010	Total N (7%)	0588	7.015	0.2900	7.439	0.4447	0.1308	75	-0.95	010.60	0
010	Total N (7%)	0559	7.045	0.0100	7.439	0.4447	0.1308	75	-0.88	010.99	0
010	Total N (7%)	0498	7.050	0.3000	7.439	0.4447	0.1308	75	-0.87	010.12	0
010	Total N (7%)	0086	7.085	0.2398	7.439	0.4447	0.1308	75	-0.80	010.60	0
010	Total N (7%)	0532	7.085	0.0500	7.439	0.4447	0.1308	75	-0.79	010.99	0
010	Total N (7%)	0558	7.110	0.0340	7.439	0.4447	0.1308	75	-0.74	010.99	0
010	Total N (7%)	0560	7.115	0.0700	7.439	0.4447	0.1308	75	-0.73	010.99	0
010	Total N (7%)	0565	7.115	0.0300	7.439	0.4447	0.1308	75	-0.73	010.99	0
010	Total N (7%)	0518	7.135	0.1300	7.439	0.4447	0.1308	75	-0.68	010.99	0
010	Total N (7%)	0564	7.160	0.0200	7.439	0.4447	0.1308	75	-0.63	010.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
010	Total N (7%)	0600	7.175	0.1500	7.439	0.4447	0.1308	75	-0.59	010.99	0
010	Total N (7%)	0095	7.215	0.3300	7.439	0.4447	0.1308	75	-0.50	010.60	0
010	Total N (7%)	0481	7.235	0.0700	7.439	0.4447	0.1308	75	-0.46	010.12	0
010	Total N (7%)	0472	7.265	0.2900	7.439	0.4447	0.1308	75	-0.39	010.60	0
010	Total N (7%)	0356	7.272	0.2660	7.439	0.4447	0.1308	75	-0.37	010.60	0
010	Total N (7%)	0230	7.300	0.0000	7.439	0.4447	0.1308	75	-0.31	010.60	0
010	Total N (7%)	0580	7.305	0.0300	7.439	0.4447	0.1308	75	-0.30	010.12	0
010	Total N (7%)	0394	7.383	0.0130	7.439	0.4447	0.1308	75	-0.13	010.99	0
010	Total N (7%)	0255	7.386	0.0120	7.439	0.4447	0.1308	75	-0.12	010.60	0
010	Total N (7%)	0131	7.396	1.114	7.439	0.4447	0.1308	75	-0.10	010.60	0
010	Total N (7%)	0476	7.413	0.1738	7.439	0.4447	0.1308	75	-0.06	010.99	0
010	Total N (7%)	0402	7.422	0.0270	7.439	0.4447	0.1308	75	-0.04	010.60	0
010	Total N (7%)	0527	7.428	0.0351	7.439	0.4447	0.1308	75	-0.02	010.60	0
010	Total N (7%)	0169	7.435	0.0100	7.439	0.4447	0.1308	75	-0.01	010.60	0
010	Total N (7%)	0563	7.450	0.2000	7.439	0.4447	0.1308	75	0.03	010.99	0
010	Total N (7%)	0354	7.455	0.0700	7.439	0.4447	0.1308	75	0.04	010.60	0
010	Total N (7%)	0029	7.457	0.0940	7.439	0.4447	0.1308	75	0.04	010.60	0
010	Total N (7%)	0568	7.500	0.0000	7.439	0.4447	0.1308	75	0.14	010.12	0
010	Total N (7%)	0481	7.575	0.0500	7.439	0.4447	0.1308	75	0.31	010.60	0
010	Total N (7%)	0389	7.615	0.0100	7.439	0.4447	0.1308	75	0.40	010.60	0
010	Total N (7%)	0510	7.626	0.1943	7.439	0.4447	0.1308	75	0.42	010.11	0
010	Total N (7%)	0055	7.660	0.0600	7.439	0.4447	0.1308	75	0.50	010.60	0
010	Total N (7%)	0523	7.660	0.0200	7.439	0.4447	0.1308	75	0.50	010.60	0
010	Total N (7%)	0587	7.685	0.0500	7.439	0.4447	0.1308	75	0.55	010.60	0
010	Total N (7%)	0405	7.695	0.0100	7.439	0.4447	0.1308	75	0.58	010.60	0
010	Total N (7%)	0325	7.700	0.2000	7.439	0.4447	0.1308	75	0.59	010.60	0
010	Total N (7%)	0292	7.705	0.0100	7.439	0.4447	0.1308	75	0.60	010.60	0
010	Total N (7%)	0106	7.715	0.0700	7.439	0.4447	0.1308	75	0.62	010.60	0
010	Total N (7%)	0231	7.715	0.0700	7.439	0.4447	0.1308	75	0.62	010.60	0
010	Total N (7%)	0561	7.715	0.1900	7.439	0.4447	0.1308	75	0.62	010.60	0
010	Total N (7%)	0368	7.737	0.1060	7.439	0.4447	0.1308	75	0.67	010.60	0
010	Total N (7%)	0049	7.739	0.0288	7.439	0.4447	0.1308	75	0.68	010.60	0
010	Total N (7%)	0291	7.745	0.0100	7.439	0.4447	0.1308	75	0.69	010.60	0
010	Total N (7%)	0233	7.749	0.0200	7.439	0.4447	0.1308	75	0.70	010.60	0
010	Total N (7%)	0027	7.785	0.1100	7.439	0.4447	0.1308	75	0.78	010.60	0
010	Total N (7%)	0220	7.785	0.0500	7.439	0.4447	0.1308	75	0.78	010.60	0
010	Total N (7%)	0451	7.789	0.2270	7.439	0.4447	0.1308	75	0.79	010.60	0
010	Total N (7%)	0390	7.795	0.1100	7.439	0.4447	0.1308	75	0.80	010.60	0
010	Total N (7%)	0043	7.800	0.0600	7.439	0.4447	0.1308	75	0.81	010.60	0
010	Total N (7%)	0260	7.800	0.0000	7.439	0.4447	0.1308	75	0.81	010.60	0
010	Total N (7%)	0177	7.812	0.0420	7.439	0.4447	0.1308	75	0.84	010.60	0
010	Total N (7%)	0114	7.815	0.1900	7.439	0.4447	0.1308	75	0.85	010.60	0
010	Total N (7%)	0494	7.830	0.0400	7.439	0.4447	0.1308	75	0.88	010.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
010	Total N (7%)	0300	7.830	0.1000	7.439	0.4447	0.1308	75	0.88	010.99	0
010	Total N (7%)	0040	7.850	0.1000	7.439	0.4447	0.1308	75	0.93	010.60	0
010	Total N (7%)	0037	7.874	0.0500	7.439	0.4447	0.1308	75	0.98	010.60	0
010	Total N (7%)	0377	8.065±	0.3900	7.439	0.4447	0.1308	75	1.41	010.60	0
010	Total N (7%)	0136	8.090±	0.0000	7.439	0.4447	0.1308	75	1.46	010.60	0
010	Total N (7%)	0485	8.090±	0.3200	7.439	0.4447	0.1308	75	1.46	010.60	0
010	Total N (7%)	0023	8.131±	0.0230	7.439	0.4447	0.1308	75	1.56	010.60	0
010	Total N (7%)	0513	8.230±	0.0400	7.439	0.4447	0.1308	75	1.78	010.99	0
010	Total N (7%)	0041	8.608±	0.5010	7.439	0.4447	0.1308	75	2.63	010.60	0
010	Total N (7%)	0524	6.234±	2.245	7.439	0.4447	0.1308	75	-2.71	010.99	1
010	Total N (7%)	0521	7.190	1.157	7.439	0.4447	0.1308	75	-0.56	010.60	1
020	Total P2O5 (%)	0042	6.190	0.3000	12.35	0.4419	0.1315	44	-13.94	020.50	0
020	Total P2O5 (%)	0563	11.07	0.0700	12.35	0.4419	0.1315	44	-2.91	020.20	0
020	Total P2O5 (%)	0476	11.47	0.1961	12.35	0.4419	0.1315	44	-2.00	020.99	0
020	Total P2O5 (%)	0389	11.56	0.0000	12.35	0.4419	0.1315	44	-1.79	020.50	0
020	Total P2O5 (%)	0472	11.71	0.0100	12.35	0.4419	0.1315	44	-1.46	020.50	0
020	Total P2O5 (%)	0510	11.86	0.0097	12.35	0.4419	0.1315	44	-1.12	020.20	0
020	Total P2O5 (%)	0587	11.89	0.1500	12.35	0.4419	0.1315	44	-1.05	020.99	0
020	Total P2O5 (%)	0524	11.94	0.3736	12.35	0.4419	0.1315	44	-0.93	020.50	0
020	Total P2O5 (%)	0534	12.06	0.0400	12.35	0.4419	0.1315	44	-0.66	020.20	0
020	Total P2O5 (%)	0415	12.12	0.1640	12.35	0.4419	0.1315	44	-0.52	020.20	0
020	Total P2O5 (%)	0481	12.13	0.0100	12.35	0.4419	0.1315	44	-0.51	020.20	0
020	Total P2O5 (%)	0588	12.14	0.2400	12.35	0.4419	0.1315	44	-0.48	020.50	0
020	Total P2O5 (%)	0521	12.15	0.0000	12.35	0.4419	0.1315	44	-0.45	020.50	0
020	Total P2O5 (%)	0513	12.20	0.0100	12.35	0.4419	0.1315	44	-0.35	020.99	0
020	Total P2O5 (%)	0560	12.20	0.0500	12.35	0.4419	0.1315	44	-0.35	020.99	0
020	Total P2O5 (%)	0324	12.20	0.0000	12.35	0.4419	0.1315	44	-0.34	020.20	0
020	Total P2O5 (%)	0035	12.20	0.2000	12.35	0.4419	0.1315	44	-0.34	020.40	0
020	Total P2O5 (%)	0169	12.21	0.0700	12.35	0.4419	0.1315	44	-0.33	020.50	0
020	Total P2O5 (%)	0565	12.29	0.0200	12.35	0.4419	0.1315	44	-0.14	020.99	0
020	Total P2O5 (%)	0260	12.30	0.5800	12.35	0.4419	0.1315	44	-0.11	020.50	0
020	Total P2O5 (%)	0255	12.31	0.1550	12.35	0.4419	0.1315	44	-0.10	020.50	0
020	Total P2O5 (%)	0564	12.33	0.0300	12.35	0.4419	0.1315	44	-0.06	020.99	0
020	Total P2O5 (%)	0390	12.35	0.3000	12.35	0.4419	0.1315	44	0.00	020.50	0
020	Total P2O5 (%)	0498	12.35	0.1000	12.35	0.4419	0.1315	44	0.00	020.20	0
020	Total P2O5 (%)	0423	12.38	0.0300	12.35	0.4419	0.1315	44	0.06	020.50	0
020	Total P2O5 (%)	0049	12.40	0.0300	12.35	0.4419	0.1315	44	0.10	020.10	0
020	Total P2O5 (%)	0394	12.40	0.0520	12.35	0.4419	0.1315	44	0.11	020.20	0
020	Total P2O5 (%)	0405	12.41	0.0100	12.35	0.4419	0.1315	44	0.12	020.20	0
020	Total P2O5 (%)	0356	12.44	0.0880	12.35	0.4419	0.1315	44	0.20	020.20	0
020	Total P2O5 (%)	0444	12.55	0.3000	12.35	0.4419	0.1315	44	0.45	020.10	0
020	Total P2O5 (%)	0231	12.58	0.0100	12.35	0.4419	0.1315	44	0.51	020.20	0
020	Total P2O5 (%)	0402	12.59	0.0060	12.35	0.4419	0.1315	44	0.54	020.50	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
020	Total P2O5 (%)	0451	12.63	0.3500	12.35	0.4419	0.1315	44	0.62	020.50	0
020	Total P2O5 (%)	0300	12.65	0.1400	12.35	0.4419	0.1315	44	0.68	020.20	0
020	Total P2O5 (%)	0580	12.66	0.1800	12.35	0.4419	0.1315	44	0.70	020.20	0
020	Total P2O5 (%)	0292	12.68	0.0200	12.35	0.4419	0.1315	44	0.75	020.20	0
020	Total P2O5 (%)	0444	12.73	0.0100	12.35	0.4419	0.1315	44	0.85	020.50	0
020	Total P2O5 (%)	0561	12.75	0.1700	12.35	0.4419	0.1315	44	0.89	020.20	0
020	Total P2O5 (%)	0291	12.90	0.0600	12.35	0.4419	0.1315	44	1.24	020.50	0
020	Total P2O5 (%)	0234	13.03	0.2500	12.35	0.4419	0.1315	44	1.53	020.50	0
020	Total P2O5 (%)	0368	13.18	0.0513	12.35	0.4419	0.1315	44	1.87	020.50	0
020	Total P2O5 (%)	0527	13.27	0.1597	12.35	0.4419	0.1315	44	2.09	020.50	0
020	Total P2O5 (%)	0433	13.35	0.3000	12.35	0.4419	0.1315	44	2.26	020.50	0
020	Total P2O5 (%)	0552	16.10	0.4900	12.35	0.4419	0.1315	44	8.47	020.50	0
020	Total P2O5 (%)	0422	12.97	0.6691	12.35	0.4419	0.1315	44	1.41	020.50	1
020	Total P2O5 (%)	0523	2.450	0.1000	12.35	0.4419	0.1315	44	-22.41	020.50	2
030	Citrate Insoluble P2O5 (%)	0405	0.0000	0.0000				0		030.20	4
040	Indirect Available P2O5 (12%)	0394	12.40±	0.0520				2		040.99	0
040	Indirect Available P2O5 (12%)	0300	12.60±	0.0000				2		040.20	0
041	Direct Available P2O5 (12%)	0230	10.75±	0.5000	12.39	0.3743	0.2173	48	-4.38	041.21	0
041	Direct Available P2O5 (12%)	0025	11.65±	0.1000	12.39	0.3743	0.2173	48	-1.98	041.51	0
041	Direct Available P2O5 (12%)	0397	11.73	0.1313	12.39	0.3743	0.2173	48	-1.78	041.21	0
041	Direct Available P2O5 (12%)	0106	11.89	0.1600	12.39	0.3743	0.2173	48	-1.34	041.21	0
041	Direct Available P2O5 (12%)	0009	12.00	0.0000	12.39	0.3743	0.2173	48	-1.05	041.10	0
041	Direct Available P2O5 (12%)	0540	12.00	0.0200	12.39	0.3743	0.2173	48	-1.05	041.99	0
041	Direct Available P2O5 (12%)	0131	12.04	0.1600	12.39	0.3743	0.2173	48	-0.94	041.50	0
041	Direct Available P2O5 (12%)	0040	12.05	0.5000	12.39	0.3743	0.2173	48	-0.91	041.51	0
041	Direct Available P2O5 (12%)	0423	12.06	0.0400	12.39	0.3743	0.2173	48	-0.89	041.51	0
041	Direct Available P2O5 (12%)	0600	12.08	0.2500	12.39	0.3743	0.2173	48	-0.85	041.99	0
041	Direct Available P2O5 (12%)	0558	12.10	0.0519	12.39	0.3743	0.2173	48	-0.78	041.20	0
041	Direct Available P2O5 (12%)	0553	12.10	0.6000	12.39	0.3743	0.2173	48	-0.78	041.20	0
041	Direct Available P2O5 (12%)	0405	12.12	0.0100	12.39	0.3743	0.2173	48	-0.74	041.21	0
041	Direct Available P2O5 (12%)	0532	12.13	0.0700	12.39	0.3743	0.2173	48	-0.71	041.99	0
041	Direct Available P2O5 (12%)	0405	12.14	0.0600	12.39	0.3743	0.2173	48	-0.67	041.11	0
041	Direct Available P2O5 (12%)	0513	12.16	0.0400	12.39	0.3743	0.2173	48	-0.62	041.11	0
041	Direct Available P2O5 (12%)	0073	12.20	0.0200	12.39	0.3743	0.2173	48	-0.51	041.11	0
041	Direct Available P2O5 (12%)	0518	12.20	0.8000	12.39	0.3743	0.2173	48	-0.51	041.99	0
041	Direct Available P2O5 (12%)	0041	12.32	0.6700	12.39	0.3743	0.2173	48	-0.20	041.10	0
041	Direct Available P2O5 (12%)	0136	12.32	0.3800	12.39	0.3743	0.2173	48	-0.19	041.51	0
041	Direct Available P2O5 (12%)	0185	12.34	0.3900	12.39	0.3743	0.2173	48	-0.15	041.11	0
041	Direct Available P2O5 (12%)	0325	12.35	0.7000	12.39	0.3743	0.2173	48	-0.11	041.50	0
041	Direct Available P2O5 (12%)	0405	12.41	0.0200	12.39	0.3743	0.2173	48	0.05	041.99	0
041	Direct Available P2O5 (12%)	0177	12.42	0.2082	12.39	0.3743	0.2173	48	0.09	041.21	0
041	Direct Available P2O5 (12%)	0029	12.43	0.0500	12.39	0.3743	0.2173	48	0.09	041.40	0
041	Direct Available P2O5 (12%)	0095	12.43	0.4200	12.39	0.3743	0.2173	48	0.10	041.21	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
041	Direct Available P2O5 (12%)	0177	12.44	0.0036	12.39	0.3743	0.2173	48	0.12	041.10	0
041	Direct Available P2O5 (12%)	0055	12.45	0.0100	12.39	0.3743	0.2173	48	0.14	041.21	0
041	Direct Available P2O5 (12%)	0485	12.45	0.1000	12.39	0.3743	0.2173	48	0.16	041.11	0
041	Direct Available P2O5 (12%)	0354	12.45	0.1000	12.39	0.3743	0.2173	48	0.16	041.21	0
041	Direct Available P2O5 (12%)	0545	12.45	0.3800	12.39	0.3743	0.2173	48	0.16	041.99	0
041	Direct Available P2O5 (12%)	0394	12.48	0.0960	12.39	0.3743	0.2173	48	0.25	041.21	0
041	Direct Available P2O5 (12%)	0220	12.50	0.1000	12.39	0.3743	0.2173	48	0.29	041.11	0
041	Direct Available P2O5 (12%)	0577	12.50	0.2800	12.39	0.3743	0.2173	48	0.29	041.20	0
041	Direct Available P2O5 (12%)	0377	12.62	0.4400	12.39	0.3743	0.2173	48	0.61	041.51	0
041	Direct Available P2O5 (12%)	0494	12.68	0.0200	12.39	0.3743	0.2173	48	0.77	041.10	0
041	Direct Available P2O5 (12%)	0055	12.69	0.5600	12.39	0.3743	0.2173	48	0.80	041.11	0
041	Direct Available P2O5 (12%)	0037	12.71	0.0580	12.39	0.3743	0.2173	48	0.84	041.51	0
041	Direct Available P2O5 (12%)	0533	12.74	0.3600	12.39	0.3743	0.2173	48	0.93	041.99	0
041	Direct Available P2O5 (12%)	0027	12.78	0.7000	12.39	0.3743	0.2173	48	1.04	041.20	0
041	Direct Available P2O5 (12%)	0023	12.80	0.0000	12.39	0.3743	0.2173	48	1.09	041.51	0
041	Direct Available P2O5 (12%)	0472	12.82	0.0000	12.39	0.3743	0.2173	48	1.15	041.21	0
041	Direct Available P2O5 (12%)	0233	12.86	0.0700	12.39	0.3743	0.2173	48	1.24	041.51	0
041	Direct Available P2O5 (12%)	0043	12.88	0.1200	12.39	0.3743	0.2173	48	1.31	041.51	0
041	Direct Available P2O5 (12%)	0360	12.89	0.5800	12.39	0.3743	0.2173	48	1.33	041.51	0
041	Direct Available P2O5 (12%)	0421	12.95	0.1000	12.39	0.3743	0.2173	48	1.49	041.50	0
041	Direct Available P2O5 (12%)	0494	13.02	0.0000	12.39	0.3743	0.2173	48	1.68	041.51	0
041	Direct Available P2O5 (12%)	0568	13.80±	0.0000	12.39	0.3743	0.2173	48	3.76	041.21	0
048	Water Soluble P2O5 (%)	0472	12.14	0.0000	12.35	0.2095	0.0527	6	-0.90	048.20	0
048	Water Soluble P2O5 (%)	0513	12.16	0.0700	12.35	0.2095	0.0527	6	-0.84	048.99	0
048	Water Soluble P2O5 (%)	0559	12.30	0.0100	12.35	0.2095	0.0527	6	-0.24	048.99	0
048	Water Soluble P2O5 (%)	0394	12.42	0.0360	12.35	0.2095	0.0527	6	0.30	048.20	0
048	Water Soluble P2O5 (%)	0444	12.55	0.1000	12.35	0.2095	0.0527	6	0.84	048.10	0
048	Water Soluble P2O5 (%)	0444	12.55	0.1000	12.35	0.2095	0.0527	6	0.84	048.50	0
048	Water Soluble P2O5 (%)	0501	12.34	0.7400	12.35	0.2095	0.0527	6	-0.05	048.50	1
050	Soluble K2O (27%)	0472	21.50±	0.0000	27.40	0.6723	0.3655	84	-8.77	050.32	0
050	Soluble K2O (27%)	0131	22.29±	0.7400	27.40	0.6723	0.3655	84	-7.60	050.51	0
050	Soluble K2O (27%)	0025	25.35±	0.9000	27.40	0.6723	0.3655	84	-3.04	050.52	0
050	Soluble K2O (27%)	0476	25.92±	0.1446	27.40	0.6723	0.3655	84	-2.20	050.99	0
050	Soluble K2O (27%)	0552	26.01±	0.3800	27.40	0.6723	0.3655	84	-2.06	050.99	0
050	Soluble K2O (27%)	0485	26.30	0.8000	27.40	0.6723	0.3655	84	-1.63	050.52	0
050	Soluble K2O (27%)	0117	26.33	1.028	27.40	0.6723	0.3655	84	-1.58	050.52	0
050	Soluble K2O (27%)	0501	26.37	0.5700	27.40	0.6723	0.3655	84	-1.53	050.99	0
050	Soluble K2O (27%)	0451	26.37	0.1000	27.40	0.6723	0.3655	84	-1.53	050.99	0
050	Soluble K2O (27%)	0260	26.39	1.380	27.40	0.6723	0.3655	84	-1.50	050.99	0
050	Soluble K2O (27%)	0563	26.57	0.1680	27.40	0.6723	0.3655	84	-1.23	050.99	0
050	Soluble K2O (27%)	0553	26.60	0.0000	27.40	0.6723	0.3655	84	-1.18	050.99	0
050	Soluble K2O (27%)	0106	26.80	1.060	27.40	0.6723	0.3655	84	-0.89	050.50	0
050	Soluble K2O (27%)	0390	26.85	0.9000	27.40	0.6723	0.3655	84	-0.81	050.50	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
050	Soluble K2O (27%)	0325	26.85	0.1000	27.40	0.6723	0.3655	84	-0.81	050.99	0
050	Soluble K2O (27%)	0587	26.86	0.0200	27.40	0.6723	0.3655	84	-0.80	050.99	0
050	Soluble K2O (27%)	0533	26.95	0.0300	27.40	0.6723	0.3655	84	-0.67	050.99	0
050	Soluble K2O (27%)	0029	26.98	0.7000	27.40	0.6723	0.3655	84	-0.62	050.62	0
050	Soluble K2O (27%)	0540	26.98	0.4800	27.40	0.6723	0.3655	84	-0.62	050.99	0
050	Soluble K2O (27%)	0255	27.01	0.2650	27.40	0.6723	0.3655	84	-0.58	050.99	0
050	Soluble K2O (27%)	0423	27.04	0.0100	27.40	0.6723	0.3655	84	-0.54	050.52	0
050	Soluble K2O (27%)	0356	27.04	0.3200	27.40	0.6723	0.3655	84	-0.54	050.30	0
050	Soluble K2O (27%)	0560	27.08	0.1650	27.40	0.6723	0.3655	84	-0.47	050.99	0
050	Soluble K2O (27%)	0600	27.10	0.1000	27.40	0.6723	0.3655	84	-0.44	050.99	0
050	Soluble K2O (27%)	0481	27.14	0.1500	27.40	0.6723	0.3655	84	-0.39	050.99	0
050	Soluble K2O (27%)	0397	27.16	0.0022	27.40	0.6723	0.3655	84	-0.36	050.51	0
050	Soluble K2O (27%)	0559	27.18	0.0100	27.40	0.6723	0.3655	84	-0.33	050.99	0
050	Soluble K2O (27%)	0402	27.18	0.4940	27.40	0.6723	0.3655	84	-0.33	050.99	0
050	Soluble K2O (27%)	0377	27.19	0.3300	27.40	0.6723	0.3655	84	-0.31	050.52	0
050	Soluble K2O (27%)	0043	27.20	0.1300	27.40	0.6723	0.3655	84	-0.30	050.52	0
050	Soluble K2O (27%)	0040	27.20	0.0000	27.40	0.6723	0.3655	84	-0.29	050.30	0
050	Soluble K2O (27%)	0055	27.20	1.540	27.40	0.6723	0.3655	84	-0.29	050.50	0
050	Soluble K2O (27%)	0565	27.20	0.0400	27.40	0.6723	0.3655	84	-0.29	050.99	0
050	Soluble K2O (27%)	0558	27.20	0.0993	27.40	0.6723	0.3655	84	-0.29	050.99	0
050	Soluble K2O (27%)	0114	27.21	1.030	27.40	0.6723	0.3655	84	-0.29	050.00	0
050	Soluble K2O (27%)	0494	27.24	1.250	27.40	0.6723	0.3655	84	-0.24	050.00	0
050	Soluble K2O (27%)	0564	27.24	0.0100	27.40	0.6723	0.3655	84	-0.24	050.99	0
050	Soluble K2O (27%)	0532	27.27	0.1200	27.40	0.6723	0.3655	84	-0.19	050.99	0
050	Soluble K2O (27%)	0545	27.29	0.0700	27.40	0.6723	0.3655	84	-0.17	050.99	0
050	Soluble K2O (27%)	0037	27.30	0.2870	27.40	0.6723	0.3655	84	-0.14	050.62	0
050	Soluble K2O (27%)	0521	27.38	0.0000	27.40	0.6723	0.3655	84	-0.02	050.99	0
050	Soluble K2O (27%)	0510	27.39	0.6107	27.40	0.6723	0.3655	84	-0.01	050.60	0
050	Soluble K2O (27%)	0518	27.40	0.4000	27.40	0.6723	0.3655	84	0.00	050.99	0
050	Soluble K2O (27%)	0513	27.44	0.0600	27.40	0.6723	0.3655	84	0.06	050.62	0
050	Soluble K2O (27%)	0055	27.45	0.1200	27.40	0.6723	0.3655	84	0.08	050.00	0
050	Soluble K2O (27%)	0444	27.45	0.3800	27.40	0.6723	0.3655	84	0.08	050.50	0
050	Soluble K2O (27%)	0291	27.45	0.0200	27.40	0.6723	0.3655	84	0.08	050.51	0
050	Soluble K2O (27%)	0230	27.50	0.4000	27.40	0.6723	0.3655	84	0.15	050.50	0
050	Soluble K2O (27%)	0354	27.50	0.0000	27.40	0.6723	0.3655	84	0.15	050.52	0
050	Soluble K2O (27%)	0117	27.51	0.8415	27.40	0.6723	0.3655	84	0.17	050.50	0
050	Soluble K2O (27%)	0561	27.56	0.0000	27.40	0.6723	0.3655	84	0.24	050.00	0
050	Soluble K2O (27%)	0405	27.57	0.0100	27.40	0.6723	0.3655	84	0.25	050.00	0
050	Soluble K2O (27%)	0136	27.57	0.0700	27.40	0.6723	0.3655	84	0.25	050.52	0
050	Soluble K2O (27%)	0042	27.60	1.040	27.40	0.6723	0.3655	84	0.30	050.99	0
050	Soluble K2O (27%)	0389	27.61	0.0500	27.40	0.6723	0.3655	84	0.31	050.99	0
050	Soluble K2O (27%)	0368	27.61	0.1183	27.40	0.6723	0.3655	84	0.32	050.51	0
050	Soluble K2O (27%)	0577	27.64	0.3100	27.40	0.6723	0.3655	84	0.35	050.31	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
050	Soluble K2O (27%)	0027	27.65	1.300	27.40	0.6723	0.3655	84	0.38	050.99	0
050	Soluble K2O (27%)	0233	27.69	0.6100	27.40	0.6723	0.3655	84	0.43	050.52	0
050	Soluble K2O (27%)	0049	27.69	0.0600	27.40	0.6723	0.3655	84	0.44	050.00	0
050	Soluble K2O (27%)	0220	27.72	0.0300	27.40	0.6723	0.3655	84	0.47	050.00	0
050	Soluble K2O (27%)	0234	27.73	0.4400	27.40	0.6723	0.3655	84	0.50	050.99	0
050	Soluble K2O (27%)	0300	27.74	0.1800	27.40	0.6723	0.3655	84	0.51	050.99	0
050	Soluble K2O (27%)	0169	27.75	0.0600	27.40	0.6723	0.3655	84	0.53	050.50	0
050	Soluble K2O (27%)	0394	27.76	0.2940	27.40	0.6723	0.3655	84	0.54	050.99	0
050	Soluble K2O (27%)	0095	27.79	0.8900	27.40	0.6723	0.3655	84	0.58	050.62	0
050	Soluble K2O (27%)	0231	27.88	0.1000	27.40	0.6723	0.3655	84	0.72	050.00	0
050	Soluble K2O (27%)	0524	27.90	0.8233	27.40	0.6723	0.3655	84	0.75	050.99	0
050	Soluble K2O (27%)	0498	27.95	0.3000	27.40	0.6723	0.3655	84	0.82	050.99	0
050	Soluble K2O (27%)	0041	28.01	0.0400	27.40	0.6723	0.3655	84	0.91	050.60	0
050	Soluble K2O (27%)	0177	28.03	0.1887	27.40	0.6723	0.3655	84	0.94	050.99	0
050	Soluble K2O (27%)	0494	28.15	0.0100	27.40	0.6723	0.3655	84	1.11	050.52	0
050	Soluble K2O (27%)	0035	28.15	0.1000	27.40	0.6723	0.3655	84	1.12	050.61	0
050	Soluble K2O (27%)	0433	28.23	0.5000	27.40	0.6723	0.3655	84	1.24	050.99	0
050	Soluble K2O (27%)	0444	28.36	1.110	27.40	0.6723	0.3655	84	1.43	050.00	0
050	Soluble K2O (27%)	0360	28.38	0.3800	27.40	0.6723	0.3655	84	1.46	050.52	0
050	Soluble K2O (27%)	0324	28.60	0.6000	27.40	0.6723	0.3655	84	1.79	050.50	0
050	Soluble K2O (27%)	0023	28.60	0.6000	27.40	0.6723	0.3655	84	1.79	050.52	0
050	Soluble K2O (27%)	0073	28.79±	0.5100	27.40	0.6723	0.3655	84	2.06	050.30	0
050	Soluble K2O (27%)	0527	28.99±	0.2528	27.40	0.6723	0.3655	84	2.37	050.99	0
050	Soluble K2O (27%)	0421	29.10±	0.2000	27.40	0.6723	0.3655	84	2.53	050.99	0
050	Soluble K2O (27%)	0422	29.45±	0.5300	27.40	0.6723	0.3655	84	3.06	050.50	0
050	Soluble K2O (27%)	0568	29.80±	0.0000	27.40	0.6723	0.3655	84	3.57	050.51	0
050	Soluble K2O (27%)	0292	30.18±	0.2400	27.40	0.6723	0.3655	84	4.14	050.50	0
050	Soluble K2O (27%)	0580	27.88	2.070	27.40	0.6723	0.3655	84	0.71	050.60	1
050	Soluble K2O (27%)	0523	58.80±	2.600	27.40	0.6723	0.3655	84	46.71	050.99	2
060	Water (Free) (%)	0510	0.2920	0.0611				2		060.99	0
060	Water (Free) (%)	0009	2.100	0.0000				2		060.99	0
101	Acid Soluble Ca (%)	0568	0.0310	0.0000	0.0935	0.1015	0.0095	8	-0.56	101.30	0
101	Acid Soluble Ca (%)	0009	0.0340	0.0020	0.0935	0.1015	0.0095	8	-0.54	101.33	0
101	Acid Soluble Ca (%)	0423	0.0355	0.0010	0.0935	0.1015	0.0095	8	-0.52	101.32	0
101	Acid Soluble Ca (%)	0035	0.0390	0.0020	0.0935	0.1015	0.0095	8	-0.49	101.30	0
101	Acid Soluble Ca (%)	0472	0.0450	0.0100	0.0935	0.1015	0.0095	8	-0.44	101.33	0
101	Acid Soluble Ca (%)	0354	0.0950	0.0100	0.0935	0.1015	0.0095	8	0.01	101.30	0
101	Acid Soluble Ca (%)	0515	0.2229	0.0306	0.0935	0.1015	0.0095	8	1.17	101.33	0
101	Acid Soluble Ca (%)	0552	0.4200	0.0200	0.0935	0.1015	0.0095	8	2.94	101.99	0
101	Acid Soluble Ca (%)	0553	< 0.005		0.0935	0.1015	0.0095	8		101.00	5
101	Acid Soluble Ca (%)	0527	< 0.01		0.0935	0.1015	0.0095	8		101.33	5
121	Acid Soluble Mg (5%)	0580	2.725±	0.0700	5.272	0.2862	0.1252	60	-8.90	121.00	0
121	Acid Soluble Mg (5%)	0568	3.340±	0.0000	5.272	0.2862	0.1252	60	-6.75	121.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
121	Acid Soluble Mg (5%)	0515	4.415†	0.0677	5.272	0.2862	0.1252	60	-2.99	121.33	0
121	Acid Soluble Mg (5%)	0073	4.640†	0.0600	5.272	0.2862	0.1252	60	-2.21	121.00	0
121	Acid Soluble Mg (5%)	0377	4.865	0.0700	5.272	0.2862	0.1252	60	-1.42	121.30	0
121	Acid Soluble Mg (5%)	0234	4.875	0.2500	5.272	0.2862	0.1252	60	-1.39	121.30	0
121	Acid Soluble Mg (5%)	0405	4.897	0.1516	5.272	0.2862	0.1252	60	-1.31	121.32	0
121	Acid Soluble Mg (5%)	0481	4.945	0.1300	5.272	0.2862	0.1252	60	-1.14	121.99	0
121	Acid Soluble Mg (5%)	0515	4.980	0.3988	5.272	0.2862	0.1252	60	-1.02	121.99	0
121	Acid Soluble Mg (5%)	0009	5.000	0.0000	5.272	0.2862	0.1252	60	-0.95	121.33	0
121	Acid Soluble Mg (5%)	0055	5.030	0.1000	5.272	0.2862	0.1252	60	-0.85	121.33	0
121	Acid Soluble Mg (5%)	0106	5.034	0.0140	5.272	0.2862	0.1252	60	-0.83	121.33	0
121	Acid Soluble Mg (5%)	0524	5.043	0.0401	5.272	0.2862	0.1252	60	-0.80	121.99	0
121	Acid Soluble Mg (5%)	0220	5.085	0.1100	5.272	0.2862	0.1252	60	-0.65	121.32	0
121	Acid Soluble Mg (5%)	0040	5.100	0.0800	5.272	0.2862	0.1252	60	-0.60	121.00	0
121	Acid Soluble Mg (5%)	0553	5.100	0.2000	5.272	0.2862	0.1252	60	-0.60	121.00	0
121	Acid Soluble Mg (5%)	0231	5.100	0.1200	5.272	0.2862	0.1252	60	-0.60	121.30	0
121	Acid Soluble Mg (5%)	0561	5.115	0.1100	5.272	0.2862	0.1252	60	-0.55	121.33	0
121	Acid Soluble Mg (5%)	0423	5.130	0.0400	5.272	0.2862	0.1252	60	-0.50	121.32	0
121	Acid Soluble Mg (5%)	0157	5.140	0.0400	5.272	0.2862	0.1252	60	-0.46	121.00	0
121	Acid Soluble Mg (5%)	0521	5.164	0.0000	5.272	0.2862	0.1252	60	-0.38	121.99	0
121	Acid Soluble Mg (5%)	0397	5.167	0.0401	5.272	0.2862	0.1252	60	-0.37	121.30	0
121	Acid Soluble Mg (5%)	0260	5.183	0.2550	5.272	0.2862	0.1252	60	-0.31	121.33	0
121	Acid Soluble Mg (5%)	0534	5.190	0.2200	5.272	0.2862	0.1252	60	-0.29	121.03	0
121	Acid Soluble Mg (5%)	0552	5.200	0.1400	5.272	0.2862	0.1252	60	-0.25	121.99	0
121	Acid Soluble Mg (5%)	0563	5.209	0.1440	5.272	0.2862	0.1252	60	-0.22	121.33	0
121	Acid Soluble Mg (5%)	0042	5.245	0.0700	5.272	0.2862	0.1252	60	-0.10	121.99	0
121	Acid Soluble Mg (5%)	0035	5.250	0.0400	5.272	0.2862	0.1252	60	-0.08	121.30	0
121	Acid Soluble Mg (5%)	0255	5.255	0.1250	5.272	0.2862	0.1252	60	-0.06	121.30	0
121	Acid Soluble Mg (5%)	0368	5.269	0.0274	5.272	0.2862	0.1252	60	-0.01	121.99	0
121	Acid Soluble Mg (5%)	0136	5.280	0.1200	5.272	0.2862	0.1252	60	0.03	121.33	0
121	Acid Soluble Mg (5%)	0095	5.285	0.3700	5.272	0.2862	0.1252	60	0.04	121.32	0
121	Acid Soluble Mg (5%)	0587	5.285	0.0900	5.272	0.2862	0.1252	60	0.04	121.99	0
121	Acid Soluble Mg (5%)	0177	5.286	0.0213	5.272	0.2862	0.1252	60	0.05	121.33	0
121	Acid Soluble Mg (5%)	0027	5.290	0.1800	5.272	0.2862	0.1252	60	0.06	121.99	0
121	Acid Soluble Mg (5%)	0402	5.298	0.0120	5.272	0.2862	0.1252	60	0.09	121.30	0
121	Acid Soluble Mg (5%)	0444	5.320	0.0400	5.272	0.2862	0.1252	60	0.17	121.30	0
121	Acid Soluble Mg (5%)	0494	5.345	0.0100	5.272	0.2862	0.1252	60	0.25	121.33	0
121	Acid Soluble Mg (5%)	0510	5.392	0.0486	5.272	0.2862	0.1252	60	0.42	121.70	0
121	Acid Soluble Mg (5%)	0043	5.400	0.1600	5.272	0.2862	0.1252	60	0.45	121.33	0
121	Acid Soluble Mg (5%)	0389	5.425	0.0100	5.272	0.2862	0.1252	60	0.53	121.99	0
121	Acid Soluble Mg (5%)	0324	5.440	0.3600	5.272	0.2862	0.1252	60	0.59	121.30	0
121	Acid Soluble Mg (5%)	0390	5.440	0.1400	5.272	0.2862	0.1252	60	0.59	121.30	0
121	Acid Soluble Mg (5%)	0023	5.445	0.0100	5.272	0.2862	0.1252	60	0.60	121.30	0
121	Acid Soluble Mg (5%)	0451	5.463	0.3170	5.272	0.2862	0.1252	60	0.66	121.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
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121	Acid Soluble Mg (5%)	0233	5.473	0.5030	5.272	0.2862	0.1252	60	0.70	121.33	0
121	Acid Soluble Mg (5%)	0485	5.485	0.3500	5.272	0.2862	0.1252	60	0.74	121.00	0
121	Acid Soluble Mg (5%)	0360	5.530	0.0000	5.272	0.2862	0.1252	60	0.90	121.30	0
121	Acid Soluble Mg (5%)	0513	5.540	0.0800	5.272	0.2862	0.1252	60	0.94	121.30	0
121	Acid Soluble Mg (5%)	0501	5.555	0.6700	5.272	0.2862	0.1252	60	0.99	121.99	0
121	Acid Soluble Mg (5%)	0433	5.564	0.2010	5.272	0.2862	0.1252	60	1.02	121.30	0
121	Acid Soluble Mg (5%)	0292	5.565	0.0500	5.272	0.2862	0.1252	60	1.02	121.32	0
121	Acid Soluble Mg (5%)	0476	5.567	0.1418	5.272	0.2862	0.1252	60	1.03	121.70	0
121	Acid Soluble Mg (5%)	0394	5.605	0.0680	5.272	0.2862	0.1252	60	1.16	121.32	0
121	Acid Soluble Mg (5%)	0354	5.665	0.1500	5.272	0.2862	0.1252	60	1.37	121.30	0
121	Acid Soluble Mg (5%)	0049	5.670	0.0487	5.272	0.2862	0.1252	60	1.39	121.30	0
121	Acid Soluble Mg (5%)	0421	5.690	0.1200	5.272	0.2862	0.1252	60	1.46	121.33	0
121	Acid Soluble Mg (5%)	0291	5.690	0.0800	5.272	0.2862	0.1252	60	1.46	121.30	0
121	Acid Soluble Mg (5%)	0527	5.780±	0.0047	5.272	0.2862	0.1252	60	1.77	121.33	0
121	Acid Soluble Mg (5%)	0472	6.270±	0.0400	5.272	0.2862	0.1252	60	3.49	121.33	0
121	Acid Soluble Mg (5%)	0523	11.93±	1.120	5.272	0.2862	0.1252	60	23.26	121.99	2
131	Water Soluble Mg (%)	0532	4.995	0.1700	5.115	0.1050	0.0700	3	-1.14	131.99	0
131	Water Soluble Mg (%)	0560	5.160	0.0400	5.115	0.1050	0.0700	3	0.43	131.99	0
131	Water Soluble Mg (%)	0444	5.190	0.0000	5.115	0.1050	0.0700	3	0.71	131.30	0
143	Elemental S (%)	0405	0.0125	0.0050	5.624	3.164	0.0591	5	-1.55	143.00	0
143	Elemental S (%)	0255	6.652	0.1470	5.624	3.164	0.0591	5	0.28	143.99	0
143	Elemental S (%)	0291	6.795	0.0100	5.624	3.164	0.0591	5	0.32	143.99	0
143	Elemental S (%)	0368	6.947	0.0036	5.624	3.164	0.0591	5	0.36	143.99	0
143	Elemental S (%)	0389	7.715	0.1300	5.624	3.164	0.0591	5	0.58	143.99	0
143	Elemental S (%)	0390	7.305	2.410	5.624	3.164	0.0591	5	0.46	143.99	1
145	Sulfate S, HCl soluble (%)	0405	6.675	0.0100	6.869	0.1907	0.1562	6	-0.90	145.00	0
145	Sulfate S, HCl soluble (%)	0494	6.707	0.1270	6.869	0.1907	0.1562	6	-0.76	145.00	0
145	Sulfate S, HCl soluble (%)	0561	6.775	0.1300	6.869	0.1907	0.1562	6	-0.44	145.00	0
145	Sulfate S, HCl soluble (%)	0553	6.995	0.2300	6.869	0.1907	0.1562	6	0.59	145.99	0
145	Sulfate S, HCl soluble (%)	0027	7.010	0.1400	6.869	0.1907	0.1562	6	0.66	145.00	0
145	Sulfate S, HCl soluble (%)	0498	7.050	0.3000	6.869	0.1907	0.1562	6	0.85	145.00	0
146	Total S in Liquid (6.5%)	0580	6.850±	0.4800				1		146.00	0
148	Total S (6.5%)	0220	0.6400±	0.0200	6.764	0.4326	0.1462	51	-14.16	148.99	0
148	Total S (6.5%)	0523	1.170±	0.0000	6.764	0.4326	0.1462	51	-12.93	148.99	0
148	Total S (6.5%)	0515	5.254±	0.3431	6.764	0.4326	0.1462	51	-3.49	148.07	0
148	Total S (6.5%)	0073	5.800±	0.4000	6.764	0.4326	0.1462	51	-2.23	148.00	0
148	Total S (6.5%)	0095	6.310	0.3400	6.764	0.4326	0.1462	51	-1.05	148.01	0
148	Total S (6.5%)	0131	6.339	0.4290	6.764	0.4326	0.1462	51	-0.98	148.00	0
148	Total S (6.5%)	0233	6.365	0.1500	6.764	0.4326	0.1462	51	-0.92	148.07	0
148	Total S (6.5%)	0444	6.385	0.0900	6.764	0.4326	0.1462	51	-0.88	148.07	0
148	Total S (6.5%)	0521	6.402	0.0000	6.764	0.4326	0.1462	51	-0.84	148.99	0
148	Total S (6.5%)	0558	6.460	0.0171	6.764	0.4326	0.1462	51	-0.70	148.99	0
148	Total S (6.5%)	0037	6.505	0.0990	6.764	0.4326	0.1462	51	-0.60	148.07	0

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148	Total S (6.5%)	0565	6.515	0.0300	6.764	0.4326	0.1462	51	-0.57	148.01	0
148	Total S (6.5%)	0534	6.520	0.0200	6.764	0.4326	0.1462	51	-0.56	148.01	0
148	Total S (6.5%)	0472	6.520	0.0200	6.764	0.4326	0.1462	51	-0.56	148.07	0
148	Total S (6.5%)	0564	6.530	0.0200	6.764	0.4326	0.1462	51	-0.54	148.01	0
148	Total S (6.5%)	0043	6.530	0.0200	6.764	0.4326	0.1462	51	-0.54	148.07	0
148	Total S (6.5%)	0559	6.535	0.0300	6.764	0.4326	0.1462	51	-0.53	148.99	0
148	Total S (6.5%)	0560	6.565	0.0500	6.764	0.4326	0.1462	51	-0.46	148.99	0
148	Total S (6.5%)	0169	6.570	0.0800	6.764	0.4326	0.1462	51	-0.45	148.04	0
148	Total S (6.5%)	0532	6.575	0.1300	6.764	0.4326	0.1462	51	-0.44	148.99	0
148	Total S (6.5%)	0600	6.575	0.1500	6.764	0.4326	0.1462	51	-0.44	148.99	0
148	Total S (6.5%)	0540	6.580	0.1400	6.764	0.4326	0.1462	51	-0.42	148.01	0
148	Total S (6.5%)	0577	6.630	0.1000	6.764	0.4326	0.1462	51	-0.31	148.99	0
148	Total S (6.5%)	0260	6.630	0.2000	6.764	0.4326	0.1462	51	-0.31	148.07	0
148	Total S (6.5%)	0136	6.680	0.2200	6.764	0.4326	0.1462	51	-0.19	148.99	0
148	Total S (6.5%)	0405	6.690	0.0200	6.764	0.4326	0.1462	51	-0.17	148.01	0
148	Total S (6.5%)	0481	6.740	0.1200	6.764	0.4326	0.1462	51	-0.05	148.99	0
148	Total S (6.5%)	0394	6.761	0.1200	6.764	0.4326	0.1462	51	-0.01	148.07	0
148	Total S (6.5%)	0433	6.821	0.3190	6.764	0.4326	0.1462	51	0.13	148.99	0
148	Total S (6.5%)	0485	6.830	0.0400	6.764	0.4326	0.1462	51	0.15	148.01	0
148	Total S (6.5%)	0035	6.835	0.2100	6.764	0.4326	0.1462	51	0.17	148.99	0
148	Total S (6.5%)	0040	6.850	0.1000	6.764	0.4326	0.1462	51	0.20	148.07	0
148	Total S (6.5%)	0106	6.870	0.4200	6.764	0.4326	0.1462	51	0.25	148.07	0
148	Total S (6.5%)	0049	6.912	0.3436	6.764	0.4326	0.1462	51	0.34	148.00	0
148	Total S (6.5%)	0377	6.915	0.0300	6.764	0.4326	0.1462	51	0.35	148.99	0
148	Total S (6.5%)	0292	6.920	0.0000	6.764	0.4326	0.1462	51	0.36	148.07	0
148	Total S (6.5%)	0494	6.935	0.0100	6.764	0.4326	0.1462	51	0.40	148.07	0
148	Total S (6.5%)	0055	6.950	0.0200	6.764	0.4326	0.1462	51	0.43	148.01	0
148	Total S (6.5%)	0230	6.950	0.1000	6.764	0.4326	0.1462	51	0.43	148.01	0
148	Total S (6.5%)	0023	7.035	0.2100	6.764	0.4326	0.1462	51	0.63	148.99	0
148	Total S (6.5%)	0513	7.120	0.0400	6.764	0.4326	0.1462	51	0.82	148.07	0
148	Total S (6.5%)	0354	7.210	0.2800	6.764	0.4326	0.1462	51	1.03	148.99	0
148	Total S (6.5%)	0501	7.250	0.3800	6.764	0.4326	0.1462	51	1.12	148.99	0
148	Total S (6.5%)	0177	7.347±	0.0912	6.764	0.4326	0.1462	51	1.35	148.07	0
148	Total S (6.5%)	0422	7.353±	0.3220	6.764	0.4326	0.1462	51	1.36	148.99	0
148	Total S (6.5%)	0421	7.405±	0.1300	6.764	0.4326	0.1462	51	1.48	148.07	0
148	Total S (6.5%)	0324	7.435±	0.3900	6.764	0.4326	0.1462	51	1.55	148.01	0
148	Total S (6.5%)	0402	7.496±	0.0710	6.764	0.4326	0.1462	51	1.69	148.07	0
148	Total S (6.5%)	0451	7.670±	0.0800	6.764	0.4326	0.1462	51	2.10	148.00	0
148	Total S (6.5%)	0563	8.480±	0.3720	6.764	0.4326	0.1462	51	3.97	148.07	0
148	Total S (6.5%)	0527	9.859±	0.1407	6.764	0.4326	0.1462	51	7.16	148.07	0
148	Total S (6.5%)	0029	6.482	0.7350	6.764	0.4326	0.1462	51	-0.65	148.00	1
149	S - HNO3 soluble (%)	0588	6.550	0.0800	6.741	0.1791	0.0526	5	-1.07	149.04	0
149	S - HNO3 soluble (%)	0524	6.583	0.0161	6.741	0.1791	0.0526	5	-0.88	149.04	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
149	S - HNO3 soluble (%)	0423	6.725	0.0500	6.741	0.1791	0.0526	5	-0.09	149.04	0
149	S - HNO3 soluble (%)	0231	6.905	0.0700	6.741	0.1791	0.0526	5	0.92	149.04	0
149	S - HNO3 soluble (%)	0397	6.941	0.0471	6.741	0.1791	0.0526	5	1.12	149.04	0
151	Acid Soluble As (ppm)	0524	0.0993	0.0087	1.039	1.706	0.1270	4	-0.55	151.30	0
151	Acid Soluble As (ppm)	0523	0.1480	0.0120	1.039	1.706	0.1270	4	-0.52	151.30	0
151	Acid Soluble As (ppm)	0563	0.3145	0.0790	1.039	1.706	0.1270	4	-0.42	151.33	0
151	Acid Soluble As (ppm)	0527	3.594	0.4081	1.039	1.706	0.1270	4	1.50	151.33	0
151	Acid Soluble As (ppm)	0255	0.0000	0.0000	1.039	1.706	0.1270	4		151.30	4
151	Acid Soluble As (ppm)	0498	< 0.2		1.039	1.706	0.1270	4		151.00	5
151	Acid Soluble As (ppm)	0368	< 0.3		1.039	1.706	0.1270	4		151.34	5
151	Acid Soluble As (ppm)	0481	< 0.5		1.039	1.706	0.1270	4		151.99	5
151	Acid Soluble As (ppm)	0009	< 0.63		1.039	1.706	0.1270	4		151.99	5
151	Acid Soluble As (ppm)	0220	< 1		1.039	1.706	0.1270	4		151.32	5
151	Acid Soluble As (ppm)	0136	< 1		1.039	1.706	0.1270	4		151.33	5
151	Acid Soluble As (ppm)	0405	< 3		1.039	1.706	0.1270	4		151.32	5
151	Acid Soluble As (ppm)	0009	< 5		1.039	1.706	0.1270	4		151.33	5
165	Acid Soluble B (%)	0524	0.0016	0.0000	0.0061	0.0078	0.0000	5	-0.51	165.99	0
165	Acid Soluble B (%)	0527	0.0021	0.0001	0.0061	0.0078	0.0000	5	-0.46	165.99	0
165	Acid Soluble B (%)	0553	0.0030	0.0000	0.0061	0.0078	0.0000	5	-0.35	165.00	0
165	Acid Soluble B (%)	0423	0.0040	0.0000	0.0061	0.0078	0.0000	5	-0.24	165.99	0
165	Acid Soluble B (%)	0472	0.0200	0.0000	0.0061	0.0078	0.0000	5	1.55	165.99	0
165	Acid Soluble B (%)	0552	0.0550	0.0500	0.0061	0.0078	0.0000	5	5.46	165.99	1
165	Acid Soluble B (%)	0009	< 0.0025		0.0061	0.0078	0.0000	5		165.99	5
165	Acid Soluble B (%)	0354	< 0.01		0.0061	0.0078	0.0000	5		165.30	5
181	Acid Soluble Cd (ppm)	0523	0.0075	0.0130	1.129	2.475	1.432	5	-0.45	181.30	0
181	Acid Soluble Cd (ppm)	0524	0.0099	0.0019	1.129	2.475	1.432	5	-0.45	181.30	0
181	Acid Soluble Cd (ppm)	0563	0.0255	0.0050	1.129	2.475	1.432	5	-0.45	181.33	0
181	Acid Soluble Cd (ppm)	0394	0.0440	0.0020	1.129	2.475	1.432	5	-0.44	181.30	0
181	Acid Soluble Cd (ppm)	0255	5.557	7.140	1.129	2.475	1.432	5	1.79	181.30	0
181	Acid Soluble Cd (ppm)	0527	< 0.0001		1.129	2.475	1.432	5		181.33	5
181	Acid Soluble Cd (ppm)	0501	< 0.001		1.129	2.475	1.432	5		181.30	5
181	Acid Soluble Cd (ppm)	0498	< 0.1		1.129	2.475	1.432	5		181.00	5
181	Acid Soluble Cd (ppm)	0220	< 0.1		1.129	2.475	1.432	5		181.32	5
181	Acid Soluble Cd (ppm)	0368	< 0.1		1.129	2.475	1.432	5		181.34	5
181	Acid Soluble Cd (ppm)	0009	< 0.13		1.129	2.475	1.432	5		181.99	5
181	Acid Soluble Cd (ppm)	0534	< 0.5		1.129	2.475	1.432	5		181.00	5
181	Acid Soluble Cd (ppm)	0481	< 0.5		1.129	2.475	1.432	5		181.99	5
181	Acid Soluble Cd (ppm)	0405	< 1		1.129	2.475	1.432	5		181.32	5
181	Acid Soluble Cd (ppm)	0136	< 1		1.129	2.475	1.432	5		181.33	5
181	Acid Soluble Cd (ppm)	0009	< 2		1.129	2.475	1.432	5		181.33	5
190	Water Soluble Cl (%)	0553	< 0.1					0		190.00	5
191	Acid Soluble Cr (ppm)	0368	0.3500	0.1000	1.747	1.009	0.0860	12	-1.38	191.34	0
191	Acid Soluble Cr (ppm)	0501	0.8550	0.0300	1.747	1.009	0.0860	12	-0.88	191.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
191	Acid Soluble Cr (ppm)	0523	1.136	0.0960	1.747	1.009	0.0860	12	-0.61	191.30	0
191	Acid Soluble Cr (ppm)	0563	1.195	0.0200	1.747	1.009	0.0860	12	-0.55	191.33	0
191	Acid Soluble Cr (ppm)	0527	1.218	0.2531	1.747	1.009	0.0860	12	-0.52	191.33	0
191	Acid Soluble Cr (ppm)	0035	1.440	0.0000	1.747	1.009	0.0860	12	-0.30	191.30	0
191	Acid Soluble Cr (ppm)	0394	1.856	0.1180	1.747	1.009	0.0860	12	0.11	191.30	0
191	Acid Soluble Cr (ppm)	0498	1.900	0.0000	1.747	1.009	0.0860	12	0.15	191.00	0
191	Acid Soluble Cr (ppm)	0524	2.002	0.0044	1.747	1.009	0.0860	12	0.25	191.30	0
191	Acid Soluble Cr (ppm)	0389	2.815	0.0100	1.747	1.009	0.0860	12	1.06	191.30	0
191	Acid Soluble Cr (ppm)	0220	3.050	0.1000	1.747	1.009	0.0860	12	1.29	191.99	0
191	Acid Soluble Cr (ppm)	0220	3.150	0.3000	1.747	1.009	0.0860	12	1.39	191.32	0
191	Acid Soluble Cr (ppm)	0405	< 1		1.747	1.009	0.0860	12		191.32	5
191	Acid Soluble Cr (ppm)	0136	< 2.5		1.747	1.009	0.0860	12		191.33	5
191	Acid Soluble Cr (ppm)	0009	< 6.3		1.747	1.009	0.0860	12		191.99	5
191	Acid Soluble Cr (ppm)	0481	< 20		1.747	1.009	0.0860	12		191.99	5
191	Acid Soluble Cr (ppm)	0009	< 22		1.747	1.009	0.0860	12		191.33	5
202	Acid Soluble Co (ppm)	0563	0.0505	0.0030	0.2404	0.2963	0.2709	5	-0.64	202.33	0
202	Acid Soluble Co (ppm)	0523	0.0650	0.0000	0.2404	0.2963	0.2709	5	-0.59	202.30	0
202	Acid Soluble Co (ppm)	0501	0.0835	0.0030	0.2404	0.2963	0.2709	5	-0.53	202.34	0
202	Acid Soluble Co (ppm)	0524	0.2528	0.0486	0.2404	0.2963	0.2709	5	0.04	202.30	0
202	Acid Soluble Co (ppm)	0368	0.7500	1.300	0.2404	0.2963	0.2709	5	1.72	202.34	0
202	Acid Soluble Co (ppm)	0255	26.21	13.57	0.2404	0.2963	0.2709	5	87.62	202.99	1
202	Acid Soluble Co (ppm)	0527	< 0.0001		0.2404	0.2963	0.2709	5		202.33	5
202	Acid Soluble Co (ppm)	0220	< 0.1		0.2404	0.2963	0.2709	5		202.32	5
202	Acid Soluble Co (ppm)	0009	< 0.63		0.2404	0.2963	0.2709	5		202.99	5
202	Acid Soluble Co (ppm)	0405	< 1		0.2404	0.2963	0.2709	5		202.32	5
202	Acid Soluble Co (ppm)	0009	< 2		0.2404	0.2963	0.2709	5		202.33	5
202	Acid Soluble Co (ppm)	0136	< 2.5		0.2404	0.2963	0.2709	5		202.33	5
202	Acid Soluble Co (ppm)	0498	< 20		0.2404	0.2963	0.2709	5		202.00	5
221	Acid Soluble Cu (%)	0394	0.0002	0.0000	0.0021	0.0026	0.0026	11	-0.74	221.32	0
221	Acid Soluble Cu (%)	0524	0.0002	0.0000	0.0021	0.0026	0.0026	11	-0.74	221.99	0
221	Acid Soluble Cu (%)	0136	0.0003	0.0000	0.0021	0.0026	0.0026	11	-0.70	221.33	0
221	Acid Soluble Cu (%)	0035	0.0004	0.0002	0.0021	0.0026	0.0026	11	-0.66	221.30	0
221	Acid Soluble Cu (%)	0527	0.0004	0.0000	0.0021	0.0026	0.0026	11	-0.66	221.33	0
221	Acid Soluble Cu (%)	0523	0.0010	0.0000	0.0021	0.0026	0.0026	11	-0.43	221.99	0
221	Acid Soluble Cu (%)	0255	0.0020	0.0000	0.0021	0.0026	0.0026	11	-0.04	221.30	0
221	Acid Soluble Cu (%)	0049	0.0025	0.0028	0.0021	0.0026	0.0026	11	0.16	221.30	0
221	Acid Soluble Cu (%)	0368	0.0042	0.0053	0.0021	0.0026	0.0026	11	0.80	221.99	0
221	Acid Soluble Cu (%)	0472	0.0300	0.0000	0.0021	0.0026	0.0026	11	10.82	221.33	0
221	Acid Soluble Cu (%)	0552	0.0600	0.0200	0.0021	0.0026	0.0026	11	22.45	221.30	0
221	Acid Soluble Cu (%)	0501	2.650	0.9000	0.0021	0.0026	0.0026	11	1026.64	221.99	2
221	Acid Soluble Cu (%)	0106	0.0001	0.0001	0.0021	0.0026	0.0026	11		221.33	4
221	Acid Soluble Cu (%)	0405	< 0.0002		0.0021	0.0026	0.0026	11		221.32	5
221	Acid Soluble Cu (%)	0481	< 0.001		0.0021	0.0026	0.0026	11		221.99	5

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
221	Acid Soluble Cu (%)	0498	< 0.002		0.0021	0.0026	0.0026	11		221.03	5
221	Acid Soluble Cu (%)	0009	< 0.002		0.0021	0.0026	0.0026	11		221.99	5
221	Acid Soluble Cu (%)	0009	< 0.0025		0.0021	0.0026	0.0026	11		221.33	5
221	Acid Soluble Cu (%)	0553	< 0.005		0.0021	0.0026	0.0026	11		221.00	5
221	Acid Soluble Cu (%)	0354	< 0.01		0.0021	0.0026	0.0026	11		221.30	5
241	Acid Soluble Fe (%)	0524	0.0017	0.0001	0.0038	0.0018	0.0019	6	-1.05	241.99	0
241	Acid Soluble Fe (%)	0423	0.0030	0.0000	0.0038	0.0018	0.0019	6	-0.39	241.32	0
241	Acid Soluble Fe (%)	0035	0.0035	0.0010	0.0038	0.0018	0.0019	6	-0.15	241.30	0
241	Acid Soluble Fe (%)	0527	0.0040	0.0001	0.0038	0.0018	0.0019	6	0.07	241.33	0
241	Acid Soluble Fe (%)	0009	0.0042	0.0001	0.0038	0.0018	0.0019	6	0.17	241.33	0
241	Acid Soluble Fe (%)	0472	0.0250	0.0100	0.0038	0.0018	0.0019	6	10.31	241.33	0
241	Acid Soluble Fe (%)	0552	0.1050	0.0700	0.0038	0.0018	0.0019	6	49.24	241.30	1
241	Acid Soluble Fe (%)	0553	< 0.005		0.0038	0.0018	0.0019	6		241.00	5
241	Acid Soluble Fe (%)	0354	< 0.01		0.0038	0.0018	0.0019	6		241.30	5
251	Acid Soluble Pb (ppm)	0394	0.0585	0.0410	0.2086	0.2408	0.1882	6	-0.62	251.30	0
251	Acid Soluble Pb (ppm)	0501	0.0655	0.0890	0.2086	0.2408	0.1882	6	-0.59	251.30	0
251	Acid Soluble Pb (ppm)	0523	0.0725	0.0430	0.2086	0.2408	0.1882	6	-0.56	251.30	0
251	Acid Soluble Pb (ppm)	0524	0.1049	0.0559	0.2086	0.2408	0.1882	6	-0.43	251.30	0
251	Acid Soluble Pb (ppm)	0220	0.4000	0.6000	0.2086	0.2408	0.1882	6	0.79	251.32	0
251	Acid Soluble Pb (ppm)	0220	0.5500	0.3000	0.2086	0.2408	0.1882	6	1.42	251.99	0
251	Acid Soluble Pb (ppm)	0255	0.4585	0.9170	0.2086	0.2408	0.1882	6		251.30	4
251	Acid Soluble Pb (ppm)	0527	< 0.0001		0.2086	0.2408	0.1882	6		251.33	5
251	Acid Soluble Pb (ppm)	0498	< 0.5		0.2086	0.2408	0.1882	6		251.00	5
251	Acid Soluble Pb (ppm)	0481	< 0.5		0.2086	0.2408	0.1882	6		251.99	5
251	Acid Soluble Pb (ppm)	0368	< 0.6		0.2086	0.2408	0.1882	6		251.34	5
251	Acid Soluble Pb (ppm)	0534	< 2		0.2086	0.2408	0.1882	6		251.00	5
251	Acid Soluble Pb (ppm)	0009	< 2.5		0.2086	0.2408	0.1882	6		251.99	5
251	Acid Soluble Pb (ppm)	0136	< 3		0.2086	0.2408	0.1882	6		251.33	5
251	Acid Soluble Pb (ppm)	0405	< 4		0.2086	0.2408	0.1882	6		251.32	5
251	Acid Soluble Pb (ppm)	0009	< 6		0.2086	0.2408	0.1882	6		251.33	5
261	Acid Soluble Mn (%)	0524	0.0006	0.0000	0.0009	0.0003	0.0017	6	-0.87	261.99	0
261	Acid Soluble Mn (%)	0009	0.0007	0.0000	0.0009	0.0003	0.0017	6	-0.59	261.35	0
261	Acid Soluble Mn (%)	0035	0.0008	0.0000	0.0009	0.0003	0.0017	6	-0.32	261.30	0
261	Acid Soluble Mn (%)	0037	0.0010	0.0000	0.0009	0.0003	0.0017	6	0.22	261.35	0
261	Acid Soluble Mn (%)	0527	0.0010	0.0000	0.0009	0.0003	0.0017	6	0.22	261.35	0
261	Acid Soluble Mn (%)	0472	0.0250	0.0100	0.0009	0.0003	0.0017	6	65.46	261.35	0
261	Acid Soluble Mn (%)	0552	0.0600	0.0600	0.0009	0.0003	0.0017	6	160.60	261.32	1
261	Acid Soluble Mn (%)	0553	< 0.005		0.0009	0.0003	0.0017	6		261.00	5
261	Acid Soluble Mn (%)	0354	< 0.01		0.0009	0.0003	0.0017	6		261.30	5
281	Acid Soluble Hg (ppm)	0368	0.0009	0.0001	0.0038	0.0042	0.0007	4	-0.58	281.99	0
281	Acid Soluble Hg (ppm)	0501	0.0020	0.0005	0.0038	0.0042	0.0007	4	-0.36	281.30	0
281	Acid Soluble Hg (ppm)	0524	0.0022	0.0000	0.0038	0.0042	0.0007	4	-0.31	281.99	0
281	Acid Soluble Hg (ppm)	0035	0.0100	0.0020	0.0038	0.0042	0.0007	4	1.26	281.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
281	Acid Soluble Hg (ppm)	0527	< 0.001		0.0038	0.0042	0.0007	4		281.30	5
281	Acid Soluble Hg (ppm)	0220	< 0.01		0.0038	0.0042	0.0007	4		281.99	5
281	Acid Soluble Hg (ppm)	0563	< 0.02		0.0038	0.0042	0.0007	4		281.30	5
281	Acid Soluble Hg (ppm)	0481	< 0.5		0.0038	0.0042	0.0007	4		281.00	5
281	Acid Soluble Hg (ppm)	0405	< 2		0.0038	0.0042	0.0007	4		281.30	5
289	Acid Soluble Mo (ppm)	0523	0.1010	0.1980	0.5414	0.2141	0.1332	8	-2.06	289.30	0
289	Acid Soluble Mo (ppm)	0524	0.3537	0.0363	0.5414	0.2141	0.1332	8	-0.88	289.30	0
289	Acid Soluble Mo (ppm)	0563	0.5440	0.1220	0.5414	0.2141	0.1332	8	0.01	289.33	0
289	Acid Soluble Mo (ppm)	0220	0.5500	0.3000	0.5414	0.2141	0.1332	8	0.04	289.99	0
289	Acid Soluble Mo (ppm)	0501	0.5600	0.0600	0.5414	0.2141	0.1332	8	0.09	289.34	0
289	Acid Soluble Mo (ppm)	0220	0.6000	0.0000	0.5414	0.2141	0.1332	8	0.27	289.32	0
289	Acid Soluble Mo (ppm)	0527	0.6406	0.0099	0.5414	0.2141	0.1332	8	0.46	289.33	0
289	Acid Soluble Mo (ppm)	0255	1.461	0.3390	0.5414	0.2141	0.1332	8	4.29	289.30	0
289	Acid Soluble Mo (ppm)	0106	0.5000	1.000	0.5414	0.2141	0.1332	8		289.33	4
289	Acid Soluble Mo (ppm)	0368	0.5000	1.000	0.5414	0.2141	0.1332	8		289.34	4
289	Acid Soluble Mo (ppm)	0405	< 1		0.5414	0.2141	0.1332	8		289.32	5
289	Acid Soluble Mo (ppm)	0136	< 2.5		0.5414	0.2141	0.1332	8		289.33	5
289	Acid Soluble Mo (ppm)	0009	< 2.5		0.5414	0.2141	0.1332	8		289.99	5
289	Acid Soluble Mo (ppm)	0009	< 4		0.5414	0.2141	0.1332	8		289.33	5
291	Acid Soluble Ni (ppm)	0524	0.4458	0.0079	0.8754	0.3832	0.2278	8	-1.12	291.30	0
291	Acid Soluble Ni (ppm)	0394	0.5640	0.0660	0.8754	0.3832	0.2278	8	-0.81	291.30	0
291	Acid Soluble Ni (ppm)	0523	0.6425	0.0170	0.8754	0.3832	0.2278	8	-0.61	291.30	0
291	Acid Soluble Ni (ppm)	0527	0.8260	0.1618	0.8754	0.3832	0.2278	8	-0.13	291.33	0
291	Acid Soluble Ni (ppm)	0501	0.8750	0.0700	0.8754	0.3832	0.2278	8	0.00	291.34	0
291	Acid Soluble Ni (ppm)	0368	0.9500	0.9000	0.8754	0.3832	0.2278	8	0.19	291.34	0
291	Acid Soluble Ni (ppm)	0220	1.300	0.2000	0.8754	0.3832	0.2278	8	1.11	291.32	0
291	Acid Soluble Ni (ppm)	0220	1.400	0.4000	0.8754	0.3832	0.2278	8	1.37	291.99	0
291	Acid Soluble Ni (ppm)	0255	30.90	15.08	0.8754	0.3832	0.2278	8	78.35	291.99	1
291	Acid Soluble Ni (ppm)	0405	< 1		0.8754	0.3832	0.2278	8		291.32	5
291	Acid Soluble Ni (ppm)	0136	< 2.5		0.8754	0.3832	0.2278	8		291.33	5
291	Acid Soluble Ni (ppm)	0009	< 3		0.8754	0.3832	0.2278	8		291.33	5
291	Acid Soluble Ni (ppm)	0009	< 6.3		0.8754	0.3832	0.2278	8		291.99	5
301	Acid Soluble Se (ppm)	0524	0.0247	0.0081	0.3320	0.5332	0.0703	4	-0.58	301.30	0
301	Acid Soluble Se (ppm)	0501	0.0405	0.0110	0.3320	0.5332	0.0703	4	-0.55	301.30	0
301	Acid Soluble Se (ppm)	0523	0.1345	0.1010	0.3320	0.5332	0.0703	4	-0.37	301.30	0
301	Acid Soluble Se (ppm)	0563	1.129	0.1610	0.3320	0.5332	0.0703	4	1.49	301.33	0
301	Acid Soluble Se (ppm)	0255	0.0000	0.0000	0.3320	0.5332	0.0703	4		301.99	4
301	Acid Soluble Se (ppm)	0527	< 0.01		0.3320	0.5332	0.0703	4		301.33	5
301	Acid Soluble Se (ppm)	0220	< 0.3		0.3320	0.5332	0.0703	4		301.32	5
301	Acid Soluble Se (ppm)	0481	< 0.5		0.3320	0.5332	0.0703	4		301.99	5
301	Acid Soluble Se (ppm)	0009	< 0.63		0.3320	0.5332	0.0703	4		301.99	5
301	Acid Soluble Se (ppm)	0368	< 1.1		0.3320	0.5332	0.0703	4		301.34	5
301	Acid Soluble Se (ppm)	0405	< 10		0.3320	0.5332	0.0703	4		301.32	5

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder PT Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	Range				
301	Acid Soluble Se (ppm)	0009	< 22		0.3320	0.5332	0.0703	4		301.33	5
311	Sodium (%)	0515	0.0500	0.0063	0.0657	0.0103	0.0033	8	-1.39	311.33	0
311	Sodium (%)	0009	0.0610	0.0020	0.0657	0.0103	0.0033	8	-0.41	311.33	0
311	Sodium (%)	0515	0.0612	0.0022	0.0657	0.0103	0.0033	8	-0.40	311.99	0
311	Sodium (%)	0423	0.0635	0.0010	0.0657	0.0103	0.0033	8	-0.19	311.33	0
311	Sodium (%)	0035	0.0655	0.0010	0.0657	0.0103	0.0033	8	-0.02	311.33	0
311	Sodium (%)	0527	0.0714	0.0009	0.0657	0.0103	0.0033	8	0.50	311.33	0
311	Sodium (%)	0553	0.0715	0.0030	0.0657	0.0103	0.0033	8	0.52	311.00	0
311	Sodium (%)	0354	0.0950	0.0100	0.0657	0.0103	0.0033	8	2.60	311.99	0
321	Acid Soluble Zn (%)	0527	0.0002	0.0000	0.0006	0.0006	0.0000	6	-0.72	321.33	0
321	Acid Soluble Zn (%)	0524	0.0002	0.0000	0.0006	0.0006	0.0000	6	-0.72	321.99	0
321	Acid Soluble Zn (%)	0136	0.0004	0.0001	0.0006	0.0006	0.0000	6	-0.48	321.33	0
321	Acid Soluble Zn (%)	0394	0.0006	0.0001	0.0006	0.0006	0.0000	6	-0.15	321.32	0
321	Acid Soluble Zn (%)	0523	0.0010	0.0000	0.0006	0.0006	0.0000	6	0.58	321.99	0
321	Acid Soluble Zn (%)	0255	0.0020	0.0000	0.0006	0.0006	0.0000	6	2.21	321.30	0
321	Acid Soluble Zn (%)	0552	0.5350	0.0100	0.0006	0.0006	0.0000	6	872.07	321.30	1
321	Acid Soluble Zn (%)	0389	41.20	0.0000	0.0006	0.0006	0.0000	6	67237.60	321.99	2
321	Acid Soluble Zn (%)	0106	0.0000	0.0000	0.0006	0.0006	0.0000	6		321.33	4
321	Acid Soluble Zn (%)	0368	0.0000	0.0000	0.0006	0.0006	0.0000	6		321.99	4
321	Acid Soluble Zn (%)	0405	< 0.0003		0.0006	0.0006	0.0000	6		321.99	5
321	Acid Soluble Zn (%)	0481	< 0.001		0.0006	0.0006	0.0000	6		321.99	5
321	Acid Soluble Zn (%)	0553	< 0.002		0.0006	0.0006	0.0000	6		321.00	5
321	Acid Soluble Zn (%)	0049	< 0.002		0.0006	0.0006	0.0000	6		321.30	5
321	Acid Soluble Zn (%)	0009	< 0.0025		0.0006	0.0006	0.0000	6		321.33	5
321	Acid Soluble Zn (%)	0498	< 0.01		0.0006	0.0006	0.0000	6		321.03	5
321	Acid Soluble Zn (%)	0354	< 0.01		0.0006	0.0006	0.0000	6		321.30	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. 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.