

# magruder fertilizer

## check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Analyte Proficiency From All Labs

Sample # 171211

Grade 5-15-30

### Statistical Summary

# Analytes: 36

# Labs Reporting: 91

Issue Date : 01/31/2018

Analyte Code	Analyte	# 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	IA %RSD	Average Range (R-bar)	Horwitz %RSD
001	Ammoniacal Nitrogen (%)	33	33	4.349	0.1537	4.339		0.1410	0.0307	3.25%		0.0430	3.21%
002	Nitrate Nitrogen (%)	18	16	0.7309	0.0901	0.7211		0.0732	0.0229	10.15%		0.0329	4.20%
009	Ammoniacal Plus Nitrate Nitrogen (%)	6	6	5.177	0.1145	5.177		0.1299	0.0663	2.51%		0.0684	3.12%
010	Total Nitrogen (5%)	69	67	5.133	0.1936	5.140	0.5114	0.1444	0.0221	2.81%	4.97%	0.0665	3.13%
020	Total Phosphorus as P2O5 (%)	48	45	15.68	0.8975	15.66		0.5985	0.1115	3.82%		0.1755	2.64%
030	Citrate Insoluble Phosphorus as P2O5 (%)	1		0.1700									
040	Indirect Available Phosphorus as P2O5 (15%)	4	4	15.49	0.3819	15.49	0.7000	0.3819	0.2387	2.46%	2.26%	0.1213	2.65%
041	Direct Available Phosphorus as P2O5 (15%)	48	47	15.13	0.3057	15.12	0.7000	0.3013	0.0549	1.99%	2.31%	0.1559	2.66%
048	Water Soluble Phosphorus as P2O5 (%)	7	6	12.91	0.2197	12.91		0.2492	0.1272	1.93%		0.0508	2.72%
050	Soluble Potassium as K2O (30%)	82	80	30.07	2.703	30.49	1.4022	0.7304	0.1021	2.40%	2.30%	0.4096	2.39%
060	Water (Free) (%)	8	8	1.072	0.4860	1.009		0.3938	0.1740	39.01%		0.0995	3.99%
101	Acid Soluble Calcium (1%)	45	44	0.4356	0.2007	0.3850	0.2192	0.0656	0.0124	17.03%	28.48%	0.0195	4.62%
121	Acid Soluble Magnesium (1.2%)	54	53	1.204	0.1538	1.184	0.2592	0.0947	0.0163	8.00%	10.94%	0.0313	3.90%
131	Water Soluble Magnesium (%)	6	6	1.022	0.2483	1.046		0.2217	0.1131	21.19%		0.0572	3.97%
143	Elemental Sulfur (%)	5	5	3.914	2.385	3.914		2.385	1.333	60.94%		0.1900	3.26%
145	Sulfate Sulfur, HCl soluble (%)	8	8	4.271	0.4698	4.197		0.3413	0.1508	8.13%		0.1109	3.22%
148	Total Sulfur (5%)	38	37	5.436	0.8249	5.467	0.4734	0.8675	0.1783	15.87%	4.33%	0.1420	3.10%
149	Sulfur - HNO3 soluble (%)	2	2	5.981	0.0333								
151	Acid Soluble Arsenic (ppm)	17	16	173.0	38.64	175.8		37.26	11.64	21.19%		3.850	7.35%
165	Acid Soluble Boron (0.3%)	42	41	0.2455	0.0387	0.2470	0.0400	0.0270	0.0053	10.94%	8.11%	0.0111	4.94%
171	Water Soluble Boron (%)	13	12	0.1573	0.0534	0.1565		0.0587	0.0212	37.51%		0.0088	5.29%
181	Acid Soluble Cadmium (ppm)	21	20	157.1	36.16	160.6		32.08	8.967	19.98%		4.913	7.45%
191	Acid Soluble Chromium (ppm)	20	19	364.4	66.41	367.2		68.41	19.62	18.63%		10.90	6.58%
202	Acid Soluble Cobalt (ppm)	19	18	281.3	49.61	287.6		40.54	11.94	14.10%		7.342	6.82%
221	Acid Soluble Copper (0.1%)	41	39	0.0286	0.0130	0.0264	0.0076	0.0035	0.0007	13.30%	14.46%	0.0020	6.91%
241	Acid Soluble Iron (0.5%)	50	49	0.5480	0.0579	0.5500	0.0600	0.0459	0.0082	8.35%	5.45%	0.0163	4.38%
251	Acid Soluble Lead (ppm)	21	20	823.2	190.2	830.9		197.1	55.09	23.72%		24.22	5.82%
261	Acid Soluble Manganese (0.3%)	42	41	0.0431	0.0584	0.0262	0.0076	0.0034	0.0007	12.78%	14.53%	0.0097	6.92%
271	Water Soluble Manganese (%)	3	3	0.0135	0.0005	0.0135		0.0005	0.0004	3.70%		0.0010	7.65%
281	Acid Soluble Mercury (ppm)	7	7	18.17	13.78	18.17		15.63	7.382	85.97%		1.047	10.34%
289	Acid Soluble Molybdenum (100ppm)	26	25	588.4	180.2	617.9	186.3773	103.6	25.91	16.77%	15.08%	23.71	6.08%

Analyte Code	Analyte	# 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	IA %RSD	Average Range (R-bar)	Horwitz %RSD
291	Acid Soluble Nickel (ppm)	20	19	21.85	6.667	21.89		7.078	2.030	32.34%		2.462	10.05%
301	Acid Soluble Selenium (ppm)	14	14	304.0	111.5	309.4		114.7	38.31	37.06%		7.257	6.75%
311	Sodium (%)	9	9	0.7284	0.0553	0.7262		0.0575	0.0240	7.92%		0.0213	4.20%
321	Acid Soluble Zinc (1.3%)	58	57	1.172	0.1037	1.172	0.1222	0.0674	0.0112	5.76%	5.21%	0.0431	3.91%
325	Water Soluble Zinc (%)	7	7	0.5899	0.3334	0.5190		0.1491	0.0704	28.73%		0.0260	4.41%

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Lab Values

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Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001	Ammoniacal Nitrogen (%)	0309	4.115	0.0100	4.339	0.1410	0.0430	33	-1.59	001.10	0
001	Ammoniacal Nitrogen (%)	0231	4.120	0.0200	4.339	0.1410	0.0430	33	-1.55	001.10	0
001	Ammoniacal Nitrogen (%)	0394	4.133	0.0400	4.339	0.1410	0.0430	33	-1.46	001.99	0
001	Ammoniacal Nitrogen (%)	0368	4.170	0.0600	4.339	0.1410	0.0430	33	-1.20	001.99	0
001	Ammoniacal Nitrogen (%)	0444	4.190	0.0200	4.339	0.1410	0.0430	33	-1.05	001.10	0
001	Ammoniacal Nitrogen (%)	0177	4.198	0.0245	4.339	0.1410	0.0430	33	-0.99	001.10	0
001	Ammoniacal Nitrogen (%)	0117	4.250	0.1000	4.339	0.1410	0.0430	33	-0.63	001.10	0
001	Ammoniacal Nitrogen (%)	0451	4.265	0.0700	4.339	0.1410	0.0430	33	-0.52	001.10	0
001	Ammoniacal Nitrogen (%)	0519	4.270	0.0200	4.339	0.1410	0.0430	33	-0.49	001.99	0
001	Ammoniacal Nitrogen (%)	0532	4.275	0.0100	4.339	0.1410	0.0430	33	-0.45	001.99	0
001	Ammoniacal Nitrogen (%)	0486	4.285	0.0300	4.339	0.1410	0.0430	33	-0.38	001.10	0
001	Ammoniacal Nitrogen (%)	0531	4.290	0.0200	4.339	0.1410	0.0430	33	-0.34	001.10	0
001	Ammoniacal Nitrogen (%)	0536	4.290	0.0200	4.339	0.1410	0.0430	33	-0.34	001.10	0
001	Ammoniacal Nitrogen (%)	0536	4.295	0.0300	4.339	0.1410	0.0430	33	-0.31	001.99	0
001	Ammoniacal Nitrogen (%)	0531	4.300	0.0200	4.339	0.1410	0.0430	33	-0.27	001.99	0
001	Ammoniacal Nitrogen (%)	0533	4.320	0.0200	4.339	0.1410	0.0430	33	-0.13	001.99	0
001	Ammoniacal Nitrogen (%)	0537	4.336	0.0930	4.339	0.1410	0.0430	33	-0.02	001.99	0
001	Ammoniacal Nitrogen (%)	0535	4.350	0.1000	4.339	0.1410	0.0430	33	0.08	001.10	0
001	Ammoniacal Nitrogen (%)	0513	4.350	0.0200	4.339	0.1410	0.0430	33	0.08	001.99	0
001	Ammoniacal Nitrogen (%)	0535	4.350	0.1000	4.339	0.1410	0.0430	33	0.08	001.99	0
001	Ammoniacal Nitrogen (%)	0539	4.350	0.0800	4.339	0.1410	0.0430	33	0.08	001.99	0
001	Ammoniacal Nitrogen (%)	0027	4.360	0.0000	4.339	0.1410	0.0430	33	0.15	001.99	0
001	Ammoniacal Nitrogen (%)	0371	4.385	0.0300	4.339	0.1410	0.0430	33	0.33	001.99	0
001	Ammoniacal Nitrogen (%)	0538	4.425	0.0500	4.339	0.1410	0.0430	33	0.61	001.99	0
001	Ammoniacal Nitrogen (%)	0540	4.425	0.0500	4.339	0.1410	0.0430	33	0.61	001.99	0
001	Ammoniacal Nitrogen (%)	0169	4.435	0.0700	4.339	0.1410	0.0430	33	0.68	001.10	0
001	Ammoniacal Nitrogen (%)	0405	4.450	0.0000	4.339	0.1410	0.0430	33	0.79	001.10	0
001	Ammoniacal Nitrogen (%)	0096	4.490	0.0200	4.339	0.1410	0.0430	33	1.07	001.99	0
001	Ammoniacal Nitrogen (%)	0255	4.510	0.1000	4.339	0.1410	0.0430	33	1.22	001.99	0
001	Ammoniacal Nitrogen (%)	0522	4.530	0.0200	4.339	0.1410	0.0430	33	1.36	001.99	0
001	Ammoniacal Nitrogen (%)	0510	4.542	0.0003	4.339	0.1410	0.0430	33	1.44	001.99	0
001	Ammoniacal Nitrogen (%)	0506	4.620	0.1200	4.339	0.1410	0.0430	33	2.00	001.99	0
001	Ammoniacal Nitrogen (%)	0501	4.855	0.0500	4.339	0.1410	0.0430	33	3.66	001.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
002	Nitrate Nitrogen (%)	0394	0.6090	0.0180	0.7211	0.0732	0.0329	16	-1.53	002.99	0
002	Nitrate Nitrogen (%)	0027	0.6350	0.0100	0.7211	0.0732	0.0329	16	-1.18	002.99	0
002	Nitrate Nitrogen (%)	0029	0.6450	0.0100	0.7211	0.0732	0.0329	16	-1.04	002.99	0
002	Nitrate Nitrogen (%)	0538	0.6800	0.0400	0.7211	0.0732	0.0329	16	-0.56	002.99	0
002	Nitrate Nitrogen (%)	0231	0.6800	0.0000	0.7211	0.0732	0.0329	16	-0.56	002.99	0
002	Nitrate Nitrogen (%)	0501	0.7000	0.0000	0.7211	0.0732	0.0329	16	-0.29	002.99	0
002	Nitrate Nitrogen (%)	0533	0.7100	0.0400	0.7211	0.0732	0.0329	16	-0.15	002.99	0
002	Nitrate Nitrogen (%)	0539	0.7150	0.0100	0.7211	0.0732	0.0329	16	-0.08	002.99	0
002	Nitrate Nitrogen (%)	0486	0.7200	0.0000	0.7211	0.0732	0.0329	16	-0.02	002.99	0
002	Nitrate Nitrogen (%)	0540	0.7200	0.0400	0.7211	0.0732	0.0329	16	-0.02	002.99	0
002	Nitrate Nitrogen (%)	0532	0.7250	0.0300	0.7211	0.0732	0.0329	16	0.05	002.99	0
002	Nitrate Nitrogen (%)	0536	0.7750	0.1500	0.7211	0.0732	0.0329	16	0.74	002.99	0
002	Nitrate Nitrogen (%)	0535	0.7750	0.0500	0.7211	0.0732	0.0329	16	0.74	002.99	0
002	Nitrate Nitrogen (%)	0531	0.7950	0.0100	0.7211	0.0732	0.0329	16	1.01	002.99	0
002	Nitrate Nitrogen (%)	0537	0.8207	0.0789	0.7211	0.0732	0.0329	16	1.36	002.99	0
002	Nitrate Nitrogen (%)	0513	0.9900	0.0400	0.7211	0.0732	0.0329	16	3.67	002.99	0
002	Nitrate Nitrogen (%)	0506	0.9050	0.1700	0.7211	0.0732	0.0329	16	2.51	002.99	1
002	Nitrate Nitrogen (%)	0029	4.445	0.0120	0.7211	0.0732	0.0329	16	50.88	002.20	2
009	Ammoniacal Plus Nitrate Nitrogen (%)	0444	5.030	0.0000	5.177	0.1299	0.0684	6	-1.01	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0169	5.075	0.0500	5.177	0.1299	0.0684	6	-0.70	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0537	5.156	0.0141	5.177	0.1299	0.0684	6	-0.14	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0397	5.212	0.2260	5.177	0.1299	0.0684	6	0.24	009.10	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0518	5.250	0.1000	5.177	0.1299	0.0684	6	0.50	009.99	0
009	Ammoniacal Plus Nitrate Nitrogen (%)	0513	5.340	0.0200	5.177	0.1299	0.0684	6	1.12	009.99	0
010	Total Nitrogen (5%)	0541	4.485*	0.0100	5.140	0.1444	0.0665	67	-4.53	010.60	0
010	Total Nitrogen (5%)	0114	4.545*	0.0500	5.140	0.1444	0.0665	67	-4.12	010.11	0
010	Total Nitrogen (5%)	0300	4.760	0.0400	5.140	0.1444	0.0665	67	-2.63	010.16	0
010	Total Nitrogen (5%)	0522	4.780	0.0200	5.140	0.1444	0.0665	67	-2.49	010.99	0
010	Total Nitrogen (5%)	0309	4.835	0.0700	5.140	0.1444	0.0665	67	-2.11	010.11	0
010	Total Nitrogen (5%)	0041	4.940	0.0600	5.140	0.1444	0.0665	67	-1.38	010.60	0
010	Total Nitrogen (5%)	0055	4.945	0.1100	5.140	0.1444	0.0665	67	-1.35	010.60	0
010	Total Nitrogen (5%)	0519	4.945	0.0100	5.140	0.1444	0.0665	67	-1.35	010.99	0
010	Total Nitrogen (5%)	0390	4.985	0.0900	5.140	0.1444	0.0665	67	-1.07	010.60	0
010	Total Nitrogen (5%)	0034	4.995	0.0300	5.140	0.1444	0.0665	67	-1.00	010.60	0
010	Total Nitrogen (5%)	0072	5.005	0.0300	5.140	0.1444	0.0665	67	-0.93	010.60	0
010	Total Nitrogen (5%)	0521	5.010	0.0000	5.140	0.1444	0.0665	67	-0.90	010.60	0
010	Total Nitrogen (5%)	0105	5.025	0.0900	5.140	0.1444	0.0665	67	-0.79	010.11	0
010	Total Nitrogen (5%)	0292	5.025	0.0100	5.140	0.1444	0.0665	67	-0.79	010.60	0
010	Total Nitrogen (5%)	0307	5.035	0.1700	5.140	0.1444	0.0665	67	-0.73	010.60	0
010	Total Nitrogen (5%)	0423	5.040	0.1200	5.140	0.1444	0.0665	67	-0.69	010.60	0
010	Total Nitrogen (5%)	0523	5.050	0.1000	5.140	0.1444	0.0665	67	-0.62	010.60	0
010	Total Nitrogen (5%)	0531	5.060	0.0200	5.140	0.1444	0.0665	67	-0.55	010.11	0
010	Total Nitrogen (5%)	0508	5.080	0.0400	5.140	0.1444	0.0665	67	-0.41	010.99	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
010	Total Nitrogen (5%)	0368	5.083	0.0660	5.140	0.1444	0.0665	67	-0.39	010.60	0
010	Total Nitrogen (5%)	0234	5.085	0.0700	5.140	0.1444	0.0665	67	-0.38	010.60	0
010	Total Nitrogen (5%)	0451	5.089	0.0490	5.140	0.1444	0.0665	67	-0.35	010.60	0
010	Total Nitrogen (5%)	0483	5.095	0.0300	5.140	0.1444	0.0665	67	-0.31	010.60	0
010	Total Nitrogen (5%)	0105	5.100	0.0600	5.140	0.1444	0.0665	67	-0.28	010.60	0
010	Total Nitrogen (5%)	0501	5.100	0.0000	5.140	0.1444	0.0665	67	-0.28	010.60	0
010	Total Nitrogen (5%)	0493	5.100	0.1000	5.140	0.1444	0.0665	67	-0.28	010.99	0
010	Total Nitrogen (5%)	0510	5.109	0.0015	5.140	0.1444	0.0665	67	-0.21	010.11	0
010	Total Nitrogen (5%)	0324	5.110	0.0200	5.140	0.1444	0.0665	67	-0.21	010.60	0
010	Total Nitrogen (5%)	0043	5.115	0.0100	5.140	0.1444	0.0665	67	-0.17	010.60	0
010	Total Nitrogen (5%)	0472	5.115	0.0700	5.140	0.1444	0.0665	67	-0.17	010.60	0
010	Total Nitrogen (5%)	0037	5.118	0.0220	5.140	0.1444	0.0665	67	-0.15	010.60	0
010	Total Nitrogen (5%)	0377	5.130	0.1600	5.140	0.1444	0.0665	67	-0.07	010.60	0
010	Total Nitrogen (5%)	0389	5.130	0.1000	5.140	0.1444	0.0665	67	-0.07	010.60	0
010	Total Nitrogen (5%)	0540	5.145	0.0900	5.140	0.1444	0.0665	67	0.04	010.11	0
010	Total Nitrogen (5%)	0073	5.145	0.0100	5.140	0.1444	0.0665	67	0.04	010.60	0
010	Total Nitrogen (5%)	0136	5.145	0.0300	5.140	0.1444	0.0665	67	0.04	010.60	0
010	Total Nitrogen (5%)	0007	5.150	0.1000	5.140	0.1444	0.0665	67	0.07	010.60	0
010	Total Nitrogen (5%)	0027	5.150	0.1000	5.140	0.1444	0.0665	67	0.07	010.60	0
010	Total Nitrogen (5%)	0527	5.155	0.0030	5.140	0.1444	0.0665	67	0.10	010.60	0
010	Total Nitrogen (5%)	0356	5.155	0.0300	5.140	0.1444	0.0665	67	0.11	010.60	0
010	Total Nitrogen (5%)	0291	5.155	0.0100	5.140	0.1444	0.0665	67	0.11	010.60	0
010	Total Nitrogen (5%)	0534	5.160	0.0000	5.140	0.1444	0.0665	67	0.14	010.12	0
010	Total Nitrogen (5%)	0177	5.167	0.1010	5.140	0.1444	0.0665	67	0.19	010.60	0
010	Total Nitrogen (5%)	0360	5.170	0.0200	5.140	0.1444	0.0665	67	0.21	010.60	0
010	Total Nitrogen (5%)	0231	5.175	0.0300	5.140	0.1444	0.0665	67	0.24	010.60	0
010	Total Nitrogen (5%)	0486	5.180	0.0000	5.140	0.1444	0.0665	67	0.28	010.60	0
010	Total Nitrogen (5%)	0397	5.186	0.1970	5.140	0.1444	0.0665	67	0.32	010.12	0
010	Total Nitrogen (5%)	0086	5.190	0.0757	5.140	0.1444	0.0665	67	0.35	010.60	0
010	Total Nitrogen (5%)	0035	5.200	0.0800	5.140	0.1444	0.0665	67	0.42	010.60	0
010	Total Nitrogen (5%)	0040	5.200	0.0000	5.140	0.1444	0.0665	67	0.42	010.60	0
010	Total Nitrogen (5%)	0405	5.220	0.0800	5.140	0.1444	0.0665	67	0.56	010.60	0
010	Total Nitrogen (5%)	0157	5.235	0.0100	5.140	0.1444	0.0665	67	0.66	010.60	0
010	Total Nitrogen (5%)	0482	5.260	0.0000	5.140	0.1444	0.0665	67	0.83	010.60	0
010	Total Nitrogen (5%)	0025	5.279	0.2250	5.140	0.1444	0.0665	67	0.96	010.60	0
010	Total Nitrogen (5%)	0494	5.290	0.0400	5.140	0.1444	0.0665	67	1.04	010.60	0
010	Total Nitrogen (5%)	0476	5.291	0.0381	5.140	0.1444	0.0665	67	1.05	010.99	0
010	Total Nitrogen (5%)	0444	5.295	0.0300	5.140	0.1444	0.0665	67	1.07	010.60	0
010	Total Nitrogen (5%)	0443	5.300	0.0000	5.140	0.1444	0.0665	67	1.11	010.60	0
010	Total Nitrogen (5%)	0325	5.300	0.2000	5.140	0.1444	0.0665	67	1.11	010.60	0
010	Total Nitrogen (5%)	0096	5.340	0.0200	5.140	0.1444	0.0665	67	1.39	010.60	0
010	Total Nitrogen (5%)	0102	5.355	0.2100	5.140	0.1444	0.0665	67	1.49	010.60	0
010	Total Nitrogen (5%)	0354	5.385	0.0520	5.140	0.1444	0.0665	67	1.70	010.60	0



Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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010	Total Nitrogen (5%)	0402	5.395	0.0700	5.140	0.1444	0.0665	67	1.77	010.60	0
010	Total Nitrogen (5%)	0029	5.410	0.4260	5.140	0.1444	0.0665	67	1.87	010.60	0
010	Total Nitrogen (5%)	0260	5.493	0.2205	5.140	0.1444	0.0665	67	2.45	010.60	0
010	Total Nitrogen (5%)	0506	5.525	0.0500	5.140	0.1444	0.0665	67	2.67	010.99	0
010	Total Nitrogen (5%)	0106	5.690	0.0800	5.140	0.1444	0.0665	67	3.81	010.60	0
010	Total Nitrogen (5%)	0516	5.595	0.6500	5.140	0.1444	0.0665	67	3.15	010.60	1
010	Total Nitrogen (5%)	0255	5.812	1.165	5.140	0.1444	0.0665	67	4.65	010.60	1
020	Total Phosphorus as P2O5 (%)	0455	12.60	0.0100	15.66	0.5985	0.1755	45	-5.12	020.99	0
020	Total Phosphorus as P2O5 (%)	0476	14.14	0.0688	15.66	0.5985	0.1755	45	-2.54	020.20	0
020	Total Phosphorus as P2O5 (%)	0255	14.47	0.8770	15.66	0.5985	0.1755	45	-1.98	020.50	0
020	Total Phosphorus as P2O5 (%)	0501	15.05	0.1000	15.66	0.5985	0.1755	45	-1.02	020.50	0
020	Total Phosphorus as P2O5 (%)	0368	15.07	0.1112	15.66	0.5985	0.1755	45	-0.99	020.50	0
020	Total Phosphorus as P2O5 (%)	0521	15.11	0.0000	15.66	0.5985	0.1755	45	-0.92	020.50	0
020	Total Phosphorus as P2O5 (%)	0472	15.12	0.1000	15.66	0.5985	0.1755	45	-0.90	020.50	0
020	Total Phosphorus as P2O5 (%)	0519	15.14	0.0200	15.66	0.5985	0.1755	45	-0.87	020.99	0
020	Total Phosphorus as P2O5 (%)	0423	15.27	0.1700	15.66	0.5985	0.1755	45	-0.66	020.50	0
020	Total Phosphorus as P2O5 (%)	0096	15.27	0.2600	15.66	0.5985	0.1755	45	-0.65	020.40	0
020	Total Phosphorus as P2O5 (%)	0444	15.28	0.2200	15.66	0.5985	0.1755	45	-0.63	020.50	0
020	Total Phosphorus as P2O5 (%)	0027	15.29	0.3900	15.66	0.5985	0.1755	45	-0.63	020.20	0
020	Total Phosphorus as P2O5 (%)	0389	15.29	0.2000	15.66	0.5985	0.1755	45	-0.62	020.50	0
020	Total Phosphorus as P2O5 (%)	0482	15.35	0.5000	15.66	0.5985	0.1755	45	-0.52	020.50	0
020	Total Phosphorus as P2O5 (%)	0534	15.39	0.0100	15.66	0.5985	0.1755	45	-0.46	020.20	0
020	Total Phosphorus as P2O5 (%)	0433	15.42	0.0700	15.66	0.5985	0.1755	45	-0.41	020.50	0
020	Total Phosphorus as P2O5 (%)	0035	15.45	0.1500	15.66	0.5985	0.1755	45	-0.36	020.40	0
020	Total Phosphorus as P2O5 (%)	0157	15.50	0.2000	15.66	0.5985	0.1755	45	-0.27	020.10	0
020	Total Phosphorus as P2O5 (%)	0371	15.50	0.2000	15.66	0.5985	0.1755	45	-0.27	020.20	0
020	Total Phosphorus as P2O5 (%)	0394	15.51	0.0160	15.66	0.5985	0.1755	45	-0.24	020.20	0
020	Total Phosphorus as P2O5 (%)	0356	15.54	0.0900	15.66	0.5985	0.1755	45	-0.21	020.20	0
020	Total Phosphorus as P2O5 (%)	0513	15.54	0.0900	15.66	0.5985	0.1755	45	-0.21	020.99	0
020	Total Phosphorus as P2O5 (%)	0510	15.54	0.0146	15.66	0.5985	0.1755	45	-0.20	020.20	0
020	Total Phosphorus as P2O5 (%)	0523	15.55	0.1000	15.66	0.5985	0.1755	45	-0.18	020.50	0
020	Total Phosphorus as P2O5 (%)	0169	15.66	0.1000	15.66	0.5985	0.1755	45	0.00	020.20	0
020	Total Phosphorus as P2O5 (%)	0405	15.68	0.0900	15.66	0.5985	0.1755	45	0.03	020.20	0
020	Total Phosphorus as P2O5 (%)	0231	15.68	0.0600	15.66	0.5985	0.1755	45	0.03	020.20	0
020	Total Phosphorus as P2O5 (%)	0493	15.70	0.1000	15.66	0.5985	0.1755	45	0.07	020.10	0
020	Total Phosphorus as P2O5 (%)	0157	15.70	0.2000	15.66	0.5985	0.1755	45	0.07	020.50	0
020	Total Phosphorus as P2O5 (%)	0515	15.76	0.9421	15.66	0.5985	0.1755	45	0.17	020.99	0
020	Total Phosphorus as P2O5 (%)	0114	15.78	0.2300	15.66	0.5985	0.1755	45	0.19	020.10	0
020	Total Phosphorus as P2O5 (%)	0444	15.79	0.0500	15.66	0.5985	0.1755	45	0.21	020.10	0
020	Total Phosphorus as P2O5 (%)	0324	15.80	0.2000	15.66	0.5985	0.1755	45	0.24	020.20	0
020	Total Phosphorus as P2O5 (%)	0234	15.91	0.1200	15.66	0.5985	0.1755	45	0.42	020.50	0
020	Total Phosphorus as P2O5 (%)	0292	15.93	0.0300	15.66	0.5985	0.1755	45	0.44	020.20	0
020	Total Phosphorus as P2O5 (%)	0300	16.32	0.1900	15.66	0.5985	0.1755	45	1.10	020.20	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
020	Total Phosphorus as P2O5 (%)	0506	16.35	0.1000	15.66	0.5985	0.1755	45	1.15	020.20	0
020	Total Phosphorus as P2O5 (%)	0541	16.45	0.1800	15.66	0.5985	0.1755	45	1.32	020.20	0
020	Total Phosphorus as P2O5 (%)	0451	16.47	0.0000	15.66	0.5985	0.1755	45	1.35	020.50	0
020	Total Phosphorus as P2O5 (%)	0527	16.50	0.0800	15.66	0.5985	0.1755	45	1.40	020.50	0
020	Total Phosphorus as P2O5 (%)	0390	16.76	0.7400	15.66	0.5985	0.1755	45	1.84	020.50	0
020	Total Phosphorus as P2O5 (%)	0309	16.81	0.0000	15.66	0.5985	0.1755	45	1.92	020.20	0
020	Total Phosphorus as P2O5 (%)	0402	16.86	0.2800	15.66	0.5985	0.1755	45	2.01	020.50	0
020	Total Phosphorus as P2O5 (%)	0443	18.09	0.0000	15.66	0.5985	0.1755	45	4.06	020.99	0
020	Total Phosphorus as P2O5 (%)	0307	18.24	0.2400	15.66	0.5985	0.1755	45	4.31	020.99	0
020	Total Phosphorus as P2O5 (%)	0483	15.26	2.100	15.66	0.5985	0.1755	45	-0.67	020.50	1
020	Total Phosphorus as P2O5 (%)	0516	16.90	1.350	15.66	0.5985	0.1755	45	2.06	020.20	1
020	Total Phosphorus as P2O5 (%)	0291	31.97	0.0100	15.66	0.5985	0.1755	45	27.24	020.50	2
030	Citrate Insoluble Phosphorus as P2O5 (%)	0096	0.1700	0.0800				1		030.40	0
040	Indirect Available Phosphorus as P2O5 (15%)	0096	15.11	0.3500	15.49	0.3819	0.1213	4	-1.02	040.40	0
040	Indirect Available Phosphorus as P2O5 (15%)	0394	15.32	0.0050	15.49	0.3819	0.1213	4	-0.46	040.99	0
040	Indirect Available Phosphorus as P2O5 (15%)	0405	15.56	0.0800	15.49	0.3819	0.1213	4	0.17	040.20	0
040	Indirect Available Phosphorus as P2O5 (15%)	0300	16.00	0.0500	15.49	0.3819	0.1213	4	1.31	040.20	0
041	Direct Available Phosphorus as P2O5 (15%)	0519	14.57	0.0400	15.12	0.3013	0.1559	47	-1.83	041.99	0
041	Direct Available Phosphorus as P2O5 (15%)	0029	14.59	0.2200	15.12	0.3013	0.1559	47	-1.76	041.60	0
041	Direct Available Phosphorus as P2O5 (15%)	0472	14.61	0.0800	15.12	0.3013	0.1559	47	-1.69	041.60	0
041	Direct Available Phosphorus as P2O5 (15%)	0027	14.63	0.4900	15.12	0.3013	0.1559	47	-1.64	041.20	0
041	Direct Available Phosphorus as P2O5 (15%)	0106	14.63	0.5900	15.12	0.3013	0.1559	47	-1.64	041.21	0
041	Direct Available Phosphorus as P2O5 (15%)	0397	14.67	0.1700	15.12	0.3013	0.1559	47	-1.51	041.60	0
041	Direct Available Phosphorus as P2O5 (15%)	0368	14.75	0.0449	15.12	0.3013	0.1559	47	-1.23	041.51	0
041	Direct Available Phosphorus as P2O5 (15%)	0394	14.76	0.1600	15.12	0.3013	0.1559	47	-1.20	041.21	0
041	Direct Available Phosphorus as P2O5 (15%)	0423	14.93	0.1500	15.12	0.3013	0.1559	47	-0.65	041.51	0
041	Direct Available Phosphorus as P2O5 (15%)	0072	14.94	0.2000	15.12	0.3013	0.1559	47	-0.60	041.51	0
041	Direct Available Phosphorus as P2O5 (15%)	0325	14.95	0.3000	15.12	0.3013	0.1559	47	-0.57	041.50	0
041	Direct Available Phosphorus as P2O5 (15%)	0177	14.99	0.0415	15.12	0.3013	0.1559	47	-0.43	041.60	0
041	Direct Available Phosphorus as P2O5 (15%)	0055	15.00	0.3400	15.12	0.3013	0.1559	47	-0.40	041.60	0
041	Direct Available Phosphorus as P2O5 (15%)	0536	15.01	0.1600	15.12	0.3013	0.1559	47	-0.37	041.99	0
041	Direct Available Phosphorus as P2O5 (15%)	0522	15.04	0.0400	15.12	0.3013	0.1559	47	-0.27	041.21	0
041	Direct Available Phosphorus as P2O5 (15%)	0533	15.05	0.0300	15.12	0.3013	0.1559	47	-0.25	041.99	0
041	Direct Available Phosphorus as P2O5 (15%)	0513	15.05	0.0600	15.12	0.3013	0.1559	47	-0.23	041.11	0
041	Direct Available Phosphorus as P2O5 (15%)	0535	15.05	0.1000	15.12	0.3013	0.1559	47	-0.23	041.21	0
041	Direct Available Phosphorus as P2O5 (15%)	0535	15.05	0.1000	15.12	0.3013	0.1559	47	-0.23	041.99	0
041	Direct Available Phosphorus as P2O5 (15%)	0538	15.06	0.0400	15.12	0.3013	0.1559	47	-0.20	041.99	0
041	Direct Available Phosphorus as P2O5 (15%)	0531	15.06	0.0200	15.12	0.3013	0.1559	47	-0.20	041.99	0
041	Direct Available Phosphorus as P2O5 (15%)	0037	15.10	0.3020	15.12	0.3013	0.1559	47	-0.06	041.51	0
041	Direct Available Phosphorus as P2O5 (15%)	0231	15.12	0.0100	15.12	0.3013	0.1559	47	-0.02	041.60	0
041	Direct Available Phosphorus as P2O5 (15%)	0532	15.12	0.1400	15.12	0.3013	0.1559	47	0.00	041.99	0
041	Direct Available Phosphorus as P2O5 (15%)	0539	15.12	0.1400	15.12	0.3013	0.1559	47	0.00	041.99	0
041	Direct Available Phosphorus as P2O5 (15%)	0073	15.13	0.1500	15.12	0.3013	0.1559	47	0.02	041.60	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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041	Direct Available Phosphorus as P2O5 (15%)	0034	15.14	0.0080	15.12	0.3013	0.1559	47	0.08	041.60	0
041	Direct Available Phosphorus as P2O5 (15%)	0043	15.15	0.0100	15.12	0.3013	0.1559	47	0.08	041.60	0
041	Direct Available Phosphorus as P2O5 (15%)	0055	15.18	0.0200	15.12	0.3013	0.1559	47	0.20	041.10	0
041	Direct Available Phosphorus as P2O5 (15%)	0025	15.20	0.3900	15.12	0.3013	0.1559	47	0.25	041.51	0
041	Direct Available Phosphorus as P2O5 (15%)	0377	15.22	0.1600	15.12	0.3013	0.1559	47	0.33	041.51	0
041	Direct Available Phosphorus as P2O5 (15%)	0518	15.25	0.3000	15.12	0.3013	0.1559	47	0.43	041.99	0
041	Direct Available Phosphorus as P2O5 (15%)	0117	15.26	0.0600	15.12	0.3013	0.1559	47	0.46	041.51	0
041	Direct Available Phosphorus as P2O5 (15%)	0537	15.27	0.1200	15.12	0.3013	0.1559	47	0.50	041.99	0
041	Direct Available Phosphorus as P2O5 (15%)	0177	15.30	0.4295	15.12	0.3013	0.1559	47	0.59	041.10	0
041	Direct Available Phosphorus as P2O5 (15%)	0007	15.30	0.0000	15.12	0.3013	0.1559	47	0.60	041.50	0
041	Direct Available Phosphorus as P2O5 (15%)	0136	15.32	0.1600	15.12	0.3013	0.1559	47	0.66	041.60	0
041	Direct Available Phosphorus as P2O5 (15%)	0360	15.33	0.1400	15.12	0.3013	0.1559	47	0.70	041.51	0
041	Direct Available Phosphorus as P2O5 (15%)	0040	15.35	0.5000	15.12	0.3013	0.1559	47	0.76	041.51	0
041	Direct Available Phosphorus as P2O5 (15%)	0117	15.35	0.1000	15.12	0.3013	0.1559	47	0.76	041.11	0
041	Direct Available Phosphorus as P2O5 (15%)	0354	15.42	0.0470	15.12	0.3013	0.1559	47	0.99	041.60	0
041	Direct Available Phosphorus as P2O5 (15%)	0072	15.49	0.1850	15.12	0.3013	0.1559	47	1.22	041.60	0
041	Direct Available Phosphorus as P2O5 (15%)	0486	15.58	0.0300	15.12	0.3013	0.1559	47	1.51	041.60	0
041	Direct Available Phosphorus as P2O5 (15%)	0102	15.60	0.0000	15.12	0.3013	0.1559	47	1.59	041.10	0
041	Direct Available Phosphorus as P2O5 (15%)	0540	15.60	0.2000	15.12	0.3013	0.1559	47	1.59	041.99	0
041	Direct Available Phosphorus as P2O5 (15%)	0095	15.82	0.2900	15.12	0.3013	0.1559	47	2.31	041.40	0
041	Direct Available Phosphorus as P2O5 (15%)	0544	15.90	0.0600	15.12	0.3013	0.1559	47	2.59	041.21	0
041	Direct Available Phosphorus as P2O5 (15%)	0009	14.50	1.000	15.12	0.3013	0.1559	47	-2.06	041.10	1
048	Water Soluble Phosphorus as P2O5 (%)	0529	12.54	0.0300	12.91	0.2492	0.0508	6	-1.33	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0519	12.84	0.0200	12.91	0.2492	0.0508	6	-0.24	048.99	0
048	Water Soluble Phosphorus as P2O5 (%)	0513	12.90	0.0300	12.91	0.2492	0.0508	6	-0.05	048.99	0
048	Water Soluble Phosphorus as P2O5 (%)	0096	12.93	0.0000	12.91	0.2492	0.0508	6	0.08	048.40	0
048	Water Soluble Phosphorus as P2O5 (%)	0394	13.08	0.1450	12.91	0.2492	0.0508	6	0.60	048.20	0
048	Water Soluble Phosphorus as P2O5 (%)	0444	13.17	0.0800	12.91	0.2492	0.0508	6	0.94	048.50	0
048	Water Soluble Phosphorus as P2O5 (%)	0444	12.91	0.4600	12.91	0.2492	0.0508	6	0.01	048.10	1
050	Soluble Potassium as K2O (30%)	0443	15.74*	0.0000	30.49	0.7304	0.4096	80	-20.19	050.60	0
050	Soluble Potassium as K2O (30%)	0291	15.94*	0.0100	30.49	0.7304	0.4096	80	-19.92	050.51	0
050	Soluble Potassium as K2O (30%)	0472	23.25*	2.100	30.49	0.7304	0.4096	80	-9.91	050.31	0
050	Soluble Potassium as K2O (30%)	0389	24.97*	0.0200	30.49	0.7304	0.4096	80	-7.55	050.99	0
050	Soluble Potassium as K2O (30%)	0541	27.00*	0.0000	30.49	0.7304	0.4096	80	-4.77	050.99	0
050	Soluble Potassium as K2O (30%)	0255	28.77*	1.238	30.49	0.7304	0.4096	80	-2.35	050.99	0
050	Soluble Potassium as K2O (30%)	0455	29.07*	0.0600	30.49	0.7304	0.4096	80	-1.94	050.60	0
050	Soluble Potassium as K2O (30%)	0072	29.46	0.7500	30.49	0.7304	0.4096	80	-1.41	050.52	0
050	Soluble Potassium as K2O (30%)	0482	29.50	0.8000	30.49	0.7304	0.4096	80	-1.35	050.99	0
050	Soluble Potassium as K2O (30%)	0157	29.70	2.400	30.49	0.7304	0.4096	80	-1.08	050.50	0
050	Soluble Potassium as K2O (30%)	0300	29.71	0.3900	30.49	0.7304	0.4096	80	-1.07	050.99	0
050	Soluble Potassium as K2O (30%)	0106	29.79	0.4300	30.49	0.7304	0.4096	80	-0.95	050.50	0
050	Soluble Potassium as K2O (30%)	0444	29.80	0.9600	30.49	0.7304	0.4096	80	-0.94	050.50	0
050	Soluble Potassium as K2O (30%)	0486	29.83	0.1500	30.49	0.7304	0.4096	80	-0.91	050.52	0



Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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050	Soluble Potassium as K2O (30%)	0521	29.84	0.0000	30.49	0.7304	0.4096	80	-0.88	050.99	0
050	Soluble Potassium as K2O (30%)	0027	29.86	0.5300	30.49	0.7304	0.4096	80	-0.86	050.99	0
050	Soluble Potassium as K2O (30%)	0390	29.91	0.6300	30.49	0.7304	0.4096	80	-0.80	050.50	0
050	Soluble Potassium as K2O (30%)	0544	29.93	0.1000	30.49	0.7304	0.4096	80	-0.76	050.00	0
050	Soluble Potassium as K2O (30%)	0523	30.00	0.4000	30.49	0.7304	0.4096	80	-0.67	050.99	0
050	Soluble Potassium as K2O (30%)	0537	30.03	1.010	30.49	0.7304	0.4096	80	-0.63	050.99	0
050	Soluble Potassium as K2O (30%)	0519	30.06	0.0700	30.49	0.7304	0.4096	80	-0.59	050.99	0
050	Soluble Potassium as K2O (30%)	0324	30.10	1.000	30.49	0.7304	0.4096	80	-0.53	050.50	0
050	Soluble Potassium as K2O (30%)	0533	30.12	0.0100	30.49	0.7304	0.4096	80	-0.51	050.99	0
050	Soluble Potassium as K2O (30%)	0493	30.15	0.1000	30.49	0.7304	0.4096	80	-0.46	050.99	0
050	Soluble Potassium as K2O (30%)	0539	30.15	0.0600	30.49	0.7304	0.4096	80	-0.46	050.99	0
050	Soluble Potassium as K2O (30%)	0055	30.17	0.0200	30.49	0.7304	0.4096	80	-0.43	050.00	0
050	Soluble Potassium as K2O (30%)	0072	30.19	0.1940	30.49	0.7304	0.4096	80	-0.41	050.00	0
050	Soluble Potassium as K2O (30%)	0040	30.20	0.6000	30.49	0.7304	0.4096	80	-0.39	050.30	0
050	Soluble Potassium as K2O (30%)	0536	30.22	0.1900	30.49	0.7304	0.4096	80	-0.37	050.99	0
050	Soluble Potassium as K2O (30%)	0096	30.24	0.1800	30.49	0.7304	0.4096	80	-0.34	050.99	0
050	Soluble Potassium as K2O (30%)	0522	30.27	0.0500	30.49	0.7304	0.4096	80	-0.30	050.00	0
050	Soluble Potassium as K2O (30%)	0518	30.29	0.3700	30.49	0.7304	0.4096	80	-0.28	050.99	0
050	Soluble Potassium as K2O (30%)	0368	30.30	0.4738	30.49	0.7304	0.4096	80	-0.25	050.99	0
050	Soluble Potassium as K2O (30%)	0095	30.32	1.450	30.49	0.7304	0.4096	80	-0.23	050.62	0
050	Soluble Potassium as K2O (30%)	0043	30.35	0.4000	30.49	0.7304	0.4096	80	-0.19	050.52	0
050	Soluble Potassium as K2O (30%)	0538	30.35	0.1000	30.49	0.7304	0.4096	80	-0.19	050.99	0
050	Soluble Potassium as K2O (30%)	0114	30.36	0.4200	30.49	0.7304	0.4096	80	-0.17	050.00	0
050	Soluble Potassium as K2O (30%)	0532	30.42	0.2100	30.49	0.7304	0.4096	80	-0.10	050.99	0
050	Soluble Potassium as K2O (30%)	0494	30.43	0.5400	30.49	0.7304	0.4096	80	-0.08	050.00	0
050	Soluble Potassium as K2O (30%)	0540	30.43	0.7400	30.49	0.7304	0.4096	80	-0.08	050.99	0
050	Soluble Potassium as K2O (30%)	0433	30.44	0.0000	30.49	0.7304	0.4096	80	-0.06	050.99	0
050	Soluble Potassium as K2O (30%)	0510	30.47	0.0407	30.49	0.7304	0.4096	80	-0.02	050.60	0
050	Soluble Potassium as K2O (30%)	0394	30.47	0.2760	30.49	0.7304	0.4096	80	-0.02	050.99	0
050	Soluble Potassium as K2O (30%)	0483	30.48	1.210	30.49	0.7304	0.4096	80	-0.02	050.51	0
050	Soluble Potassium as K2O (30%)	0356	30.55	0.1200	30.49	0.7304	0.4096	80	0.09	050.30	0
050	Soluble Potassium as K2O (30%)	0325	30.70	1.200	30.49	0.7304	0.4096	80	0.29	050.99	0
050	Soluble Potassium as K2O (30%)	0292	30.72	0.0000	30.49	0.7304	0.4096	80	0.32	050.50	0
050	Soluble Potassium as K2O (30%)	0402	30.72	0.0800	30.49	0.7304	0.4096	80	0.32	050.99	0
050	Soluble Potassium as K2O (30%)	0423	30.75	0.4000	30.49	0.7304	0.4096	80	0.36	050.52	0
050	Soluble Potassium as K2O (30%)	0476	30.75	0.3909	30.49	0.7304	0.4096	80	0.36	050.99	0
050	Soluble Potassium as K2O (30%)	0034	30.76	0.1220	30.49	0.7304	0.4096	80	0.38	050.62	0
050	Soluble Potassium as K2O (30%)	0169	30.79	0.0700	30.49	0.7304	0.4096	80	0.41	050.60	0
050	Soluble Potassium as K2O (30%)	0102	30.80	0.0000	30.49	0.7304	0.4096	80	0.43	050.00	0
050	Soluble Potassium as K2O (30%)	0055	30.82	0.2100	30.49	0.7304	0.4096	80	0.45	050.50	0
050	Soluble Potassium as K2O (30%)	0531	30.85	0.1000	30.49	0.7304	0.4096	80	0.50	050.99	0
050	Soluble Potassium as K2O (30%)	0405	30.90	0.0600	30.49	0.7304	0.4096	80	0.57	050.00	0
050	Soluble Potassium as K2O (30%)	0007	30.90	0.0000	30.49	0.7304	0.4096	80	0.57	050.51	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
050	Soluble Potassium as K2O (30%)	0535	30.90	0.2000	30.49	0.7304	0.4096	80	0.57	050.61	0
050	Soluble Potassium as K2O (30%)	0371	30.90	0.4000	30.49	0.7304	0.4096	80	0.57	050.99	0
050	Soluble Potassium as K2O (30%)	0535	30.90	0.2000	30.49	0.7304	0.4096	80	0.57	050.99	0
050	Soluble Potassium as K2O (30%)	0231	30.93	0.1100	30.49	0.7304	0.4096	80	0.60	050.00	0
050	Soluble Potassium as K2O (30%)	0307	30.96	0.8300	30.49	0.7304	0.4096	80	0.64	050.99	0
050	Soluble Potassium as K2O (30%)	0037	30.97	0.4100	30.49	0.7304	0.4096	80	0.66	050.52	0
050	Soluble Potassium as K2O (30%)	0035	30.98	0.5600	30.49	0.7304	0.4096	80	0.68	050.61	0
050	Soluble Potassium as K2O (30%)	0360	31.03	0.1700	30.49	0.7304	0.4096	80	0.74	050.52	0
050	Soluble Potassium as K2O (30%)	0354	31.07	0.3360	30.49	0.7304	0.4096	80	0.80	050.52	0
050	Soluble Potassium as K2O (30%)	0506	31.15	0.9000	30.49	0.7304	0.4096	80	0.91	050.99	0
050	Soluble Potassium as K2O (30%)	0444	31.18	0.3600	30.49	0.7304	0.4096	80	0.95	050.99	0
050	Soluble Potassium as K2O (30%)	0025	31.19	0.3700	30.49	0.7304	0.4096	80	0.96	050.52	0
050	Soluble Potassium as K2O (30%)	0527	31.29	0.1300	30.49	0.7304	0.4096	80	1.09	050.99	0
050	Soluble Potassium as K2O (30%)	0309	31.35	1.150	30.49	0.7304	0.4096	80	1.18	050.30	0
050	Soluble Potassium as K2O (30%)	0234	31.45	0.1900	30.49	0.7304	0.4096	80	1.31	050.99	0
050	Soluble Potassium as K2O (30%)	0117	31.66	0.6600	30.49	0.7304	0.4096	80	1.61	050.52	0
050	Soluble Potassium as K2O (30%)	0397	31.89	0.0710	30.49	0.7304	0.4096	80	1.93	050.50	0
050	Soluble Potassium as K2O (30%)	0177	31.90	0.3895	30.49	0.7304	0.4096	80	1.94	050.99	0
050	Soluble Potassium as K2O (30%)	0157	32.10	0.4000	30.49	0.7304	0.4096	80	2.21	050.30	0
050	Soluble Potassium as K2O (30%)	0377	32.11	0.1900	30.49	0.7304	0.4096	80	2.22	050.52	0
050	Soluble Potassium as K2O (30%)	0073	32.27	0.1900	30.49	0.7304	0.4096	80	2.44	050.30	0
050	Soluble Potassium as K2O (30%)	0451	32.53	1.120	30.49	0.7304	0.4096	80	2.80	050.99	0
050	Soluble Potassium as K2O (30%)	0526	35.89	0.0000	30.49	0.7304	0.4096	80	7.40	050.60	0
050	Soluble Potassium as K2O (30%)	0428	28.05*	3.781	30.49	0.7304	0.4096	80	-3.34	050.30	1
050	Soluble Potassium as K2O (30%)	0516	30.19	4.729	30.49	0.7304	0.4096	80	-0.40	050.99	1
060	Water (Free) (%)	0007	0.6000	0.0600	1.009	0.3938	0.0995	8	-0.95	060.00	0
060	Water (Free) (%)	0055	0.6400	0.2800	1.009	0.3938	0.0995	8	-0.86	060.99	0
060	Water (Free) (%)	0096	0.7550	0.1300	1.009	0.3938	0.0995	8	-0.59	060.00	0
060	Water (Free) (%)	0513	0.9350	0.0100	1.009	0.3938	0.0995	8	-0.17	060.99	0
060	Water (Free) (%)	0518	1.075	0.0100	1.009	0.3938	0.0995	8	0.15	060.99	0
060	Water (Free) (%)	0055	1.150	0.3000	1.009	0.3938	0.0995	8	0.33	060.30	0
060	Water (Free) (%)	0510	1.321	0.0062	1.009	0.3938	0.0995	8	0.72	060.99	0
060	Water (Free) (%)	0009	2.100	0.0000	1.009	0.3938	0.0995	8	2.53	060.99	0
101	Acid Soluble Calcium (1%)	0106	0.2308	0.0391	0.3850	0.0656	0.0195	44	-2.35	101.33	0
101	Acid Soluble Calcium (1%)	0472	0.2700	0.0400	0.3850	0.0656	0.0195	44	-1.75	101.30	0
101	Acid Soluble Calcium (1%)	0354	0.3110	0.0300	0.3850	0.0656	0.0195	44	-1.13	101.30	0
101	Acid Soluble Calcium (1%)	0035	0.3270	0.0040	0.3850	0.0656	0.0195	44	-0.88	101.30	0
101	Acid Soluble Calcium (1%)	0086	0.3312	0.0069	0.3850	0.0656	0.0195	44	-0.82	101.33	0
101	Acid Soluble Calcium (1%)	0255	0.3360	0.0140	0.3850	0.0656	0.0195	44	-0.75	101.30	0
101	Acid Soluble Calcium (1%)	0521	0.3380	0.0000	0.3850	0.0656	0.0195	44	-0.72	101.32	0
101	Acid Soluble Calcium (1%)	0177	0.3443	0.0117	0.3850	0.0656	0.0195	44	-0.62	101.33	0
101	Acid Soluble Calcium (1%)	0040	0.3450	0.0100	0.3850	0.0656	0.0195	44	-0.61	101.00	0
101	Acid Soluble Calcium (1%)	0482	0.3450	0.0100	0.3850	0.0656	0.0195	44	-0.61	101.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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101	Acid Soluble Calcium (1%)	0389	0.3450	0.0100	0.3850	0.0656	0.0195	44	-0.61	101.99	0
101	Acid Soluble Calcium (1%)	0072	0.3460	0.0200	0.3850	0.0656	0.0195	44	-0.59	101.33	0
101	Acid Soluble Calcium (1%)	0368	0.3480	0.0538	0.3850	0.0656	0.0195	44	-0.56	101.99	0
101	Acid Soluble Calcium (1%)	0117	0.3513	0.0030	0.3850	0.0656	0.0195	44	-0.51	101.33	0
101	Acid Soluble Calcium (1%)	0360	0.3535	0.0070	0.3850	0.0656	0.0195	44	-0.48	101.30	0
101	Acid Soluble Calcium (1%)	0397	0.3543	0.0058	0.3850	0.0656	0.0195	44	-0.47	101.33	0
101	Acid Soluble Calcium (1%)	0055	0.3550	0.0100	0.3850	0.0656	0.0195	44	-0.46	101.33	0
101	Acid Soluble Calcium (1%)	0029	0.3598	0.0205	0.3850	0.0656	0.0195	44	-0.38	101.00	0
101	Acid Soluble Calcium (1%)	0096	0.3600	0.0000	0.3850	0.0656	0.0195	44	-0.38	101.30	0
101	Acid Soluble Calcium (1%)	0034	0.3620	0.0080	0.3850	0.0656	0.0195	44	-0.35	101.33	0
101	Acid Soluble Calcium (1%)	0300	0.3640	0.0071	0.3850	0.0656	0.0195	44	-0.32	101.32	0
101	Acid Soluble Calcium (1%)	0485	0.3685	0.0237	0.3850	0.0656	0.0195	44	-0.25	101.00	0
101	Acid Soluble Calcium (1%)	0444	0.3700	0.0000	0.3850	0.0656	0.0195	44	-0.23	101.30	0
101	Acid Soluble Calcium (1%)	0451	0.3710	0.0180	0.3850	0.0656	0.0195	44	-0.21	101.30	0
101	Acid Soluble Calcium (1%)	0433	0.3715	0.0070	0.3850	0.0656	0.0195	44	-0.21	101.30	0
101	Acid Soluble Calcium (1%)	0157	0.3775	0.0210	0.3850	0.0656	0.0195	44	-0.11	101.30	0
101	Acid Soluble Calcium (1%)	0027	0.3785	0.0430	0.3850	0.0656	0.0195	44	-0.10	101.99	0
101	Acid Soluble Calcium (1%)	0102	0.3797	0.0029	0.3850	0.0656	0.0195	44	-0.08	101.30	0
101	Acid Soluble Calcium (1%)	0541	0.3800	0.0600	0.3850	0.0656	0.0195	44	-0.08	101.32	0
101	Acid Soluble Calcium (1%)	0527	0.3805	0.0090	0.3850	0.0656	0.0195	44	-0.07	101.33	0
101	Acid Soluble Calcium (1%)	0423	0.3880	0.0040	0.3850	0.0656	0.0195	44	0.05	101.32	0
101	Acid Soluble Calcium (1%)	0157	0.4015	0.0130	0.3850	0.0656	0.0195	44	0.25	101.00	0
101	Acid Soluble Calcium (1%)	0037	0.4035	0.0250	0.3850	0.0656	0.0195	44	0.28	101.33	0
101	Acid Soluble Calcium (1%)	0390	0.4362	0.0363	0.3850	0.0656	0.0195	44	0.78	101.99	0
101	Acid Soluble Calcium (1%)	0136	0.4500	0.0000	0.3850	0.0656	0.0195	44	0.99	101.30	0
101	Acid Soluble Calcium (1%)	0394	0.4675	0.0350	0.3850	0.0656	0.0195	44	1.26	101.32	0
101	Acid Soluble Calcium (1%)	0324	0.4825	0.1230	0.3850	0.0656	0.0195	44	1.49	101.30	0
101	Acid Soluble Calcium (1%)	0529	0.5000	0.0000	0.3850	0.0656	0.0195	44	1.75	101.70	0
101	Acid Soluble Calcium (1%)	0523	0.6000	0.0000	0.3850	0.0656	0.0195	44	3.28	101.99	0
101	Acid Soluble Calcium (1%)	0483	0.6010	0.0020	0.3850	0.0656	0.0195	44	3.29	101.30	0
101	Acid Soluble Calcium (1%)	0231	0.6600	0.0400	0.3850	0.0656	0.0195	44	4.19	101.30	0
101	Acid Soluble Calcium (1%)	0510	1.075	0.0007	0.3850	0.0656	0.0195	44	10.52	101.70	0
101	Acid Soluble Calcium (1%)	0519	1.076	0.0020	0.3850	0.0656	0.0195	44	10.54	101.99	0
101	Acid Soluble Calcium (1%)	0544	1.170	0.0800	0.3850	0.0656	0.0195	44	11.97	101.70	0
101	Acid Soluble Calcium (1%)	0476	1.008	0.2393	0.3850	0.0656	0.0195	44	9.50	101.70	1
121	Acid Soluble Magnesium (1.2%)	0476	0.8615*	0.0230	1.184	0.0947	0.0313	53	-3.41	121.99	0
121	Acid Soluble Magnesium (1.2%)	0513	1.025	0.0300	1.184	0.0947	0.0313	53	-1.68	121.00	0
121	Acid Soluble Magnesium (1.2%)	0291	1.025	0.0100	1.184	0.0947	0.0313	53	-1.68	121.30	0
121	Acid Soluble Magnesium (1.2%)	0255	1.059	0.0640	1.184	0.0947	0.0313	53	-1.32	121.30	0
121	Acid Soluble Magnesium (1.2%)	0106	1.060	0.0130	1.184	0.0947	0.0313	53	-1.31	121.33	0
121	Acid Soluble Magnesium (1.2%)	0394	1.065	0.0100	1.184	0.0947	0.0313	53	-1.26	121.32	0
121	Acid Soluble Magnesium (1.2%)	0157	1.085	0.0100	1.184	0.0947	0.0313	53	-1.05	121.00	0
121	Acid Soluble Magnesium (1.2%)	0324	1.090	0.0200	1.184	0.0947	0.0313	53	-0.99	121.30	0

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121	Acid Soluble Magnesium (1.2%)	0486	1.090	0.0200	1.184	0.0947	0.0313	53	-0.99	121.33	0
121	Acid Soluble Magnesium (1.2%)	0035	1.105	0.0300	1.184	0.0947	0.0313	53	-0.84	121.30	0
121	Acid Soluble Magnesium (1.2%)	0360	1.110	0.0200	1.184	0.0947	0.0313	53	-0.78	121.30	0
121	Acid Soluble Magnesium (1.2%)	0521	1.113	0.0000	1.184	0.0947	0.0313	53	-0.75	121.32	0
121	Acid Soluble Magnesium (1.2%)	0086	1.120	0.0014	1.184	0.0947	0.0313	53	-0.68	121.33	0
121	Acid Soluble Magnesium (1.2%)	0300	1.140	0.0200	1.184	0.0947	0.0313	53	-0.47	121.32	0
121	Acid Soluble Magnesium (1.2%)	0423	1.140	0.0200	1.184	0.0947	0.0313	53	-0.47	121.32	0
121	Acid Soluble Magnesium (1.2%)	0096	1.145	0.0300	1.184	0.0947	0.0313	53	-0.41	121.30	0
121	Acid Soluble Magnesium (1.2%)	0482	1.145	0.0300	1.184	0.0947	0.0313	53	-0.41	121.30	0
121	Acid Soluble Magnesium (1.2%)	0523	1.150	0.1000	1.184	0.0947	0.0313	53	-0.36	121.99	0
121	Acid Soluble Magnesium (1.2%)	0117	1.155	0.0040	1.184	0.0947	0.0313	53	-0.31	121.33	0
121	Acid Soluble Magnesium (1.2%)	0506	1.160	0.0200	1.184	0.0947	0.0313	53	-0.25	121.99	0
121	Acid Soluble Magnesium (1.2%)	0516	1.160	0.0746	1.184	0.0947	0.0313	53	-0.25	121.00	0
121	Acid Soluble Magnesium (1.2%)	0034	1.162	0.0170	1.184	0.0947	0.0313	53	-0.24	121.33	0
121	Acid Soluble Magnesium (1.2%)	0397	1.162	0.0293	1.184	0.0947	0.0313	53	-0.23	121.33	0
121	Acid Soluble Magnesium (1.2%)	0157	1.165	0.0100	1.184	0.0947	0.0313	53	-0.20	121.30	0
121	Acid Soluble Magnesium (1.2%)	0231	1.175	0.0300	1.184	0.0947	0.0313	53	-0.10	121.30	0
121	Acid Soluble Magnesium (1.2%)	0444	1.180	0.0200	1.184	0.0947	0.0313	53	-0.04	121.30	0
121	Acid Soluble Magnesium (1.2%)	0389	1.185	0.0100	1.184	0.0947	0.0313	53	0.01	121.99	0
121	Acid Soluble Magnesium (1.2%)	0072	1.190	0.0000	1.184	0.0947	0.0313	53	0.06	121.32	0
121	Acid Soluble Magnesium (1.2%)	0368	1.191	0.0404	1.184	0.0947	0.0313	53	0.07	121.99	0
121	Acid Soluble Magnesium (1.2%)	0485	1.193	0.1280	1.184	0.0947	0.0313	53	0.09	121.00	0
121	Acid Soluble Magnesium (1.2%)	0354	1.198	0.0190	1.184	0.0947	0.0313	53	0.14	121.30	0
121	Acid Soluble Magnesium (1.2%)	0029	1.199	0.0790	1.184	0.0947	0.0313	53	0.15	121.00	0
121	Acid Soluble Magnesium (1.2%)	0534	1.200	0.0400	1.184	0.0947	0.0313	53	0.17	121.00	0
121	Acid Soluble Magnesium (1.2%)	0234	1.200	0.0600	1.184	0.0947	0.0313	53	0.17	121.30	0
121	Acid Soluble Magnesium (1.2%)	0371	1.200	0.0000	1.184	0.0947	0.0313	53	0.17	121.30	0
121	Acid Soluble Magnesium (1.2%)	0501	1.200	0.0000	1.184	0.0947	0.0313	53	0.17	121.99	0
121	Acid Soluble Magnesium (1.2%)	0177	1.203	0.0564	1.184	0.0947	0.0313	53	0.20	121.33	0
121	Acid Soluble Magnesium (1.2%)	0037	1.205	0.0240	1.184	0.0947	0.0313	53	0.22	121.33	0
121	Acid Soluble Magnesium (1.2%)	0527	1.221	0.0280	1.184	0.0947	0.0313	53	0.39	121.33	0
121	Acid Soluble Magnesium (1.2%)	0027	1.227	0.0170	1.184	0.0947	0.0313	53	0.45	121.99	0
121	Acid Soluble Magnesium (1.2%)	0055	1.230	0.0200	1.184	0.0947	0.0313	53	0.48	121.33	0
121	Acid Soluble Magnesium (1.2%)	0102	1.233	0.0412	1.184	0.0947	0.0313	53	0.52	121.30	0
121	Acid Soluble Magnesium (1.2%)	0136	1.235	0.0700	1.184	0.0947	0.0313	53	0.54	121.33	0
121	Acid Soluble Magnesium (1.2%)	0519	1.275	0.0500	1.184	0.0947	0.0313	53	0.96	121.99	0
121	Acid Soluble Magnesium (1.2%)	0483	1.305	0.0500	1.184	0.0947	0.0313	53	1.28	121.30	0
121	Acid Soluble Magnesium (1.2%)	0390	1.331	0.0410	1.184	0.0947	0.0313	53	1.54	121.30	0
121	Acid Soluble Magnesium (1.2%)	0433	1.339	0.0180	1.184	0.0947	0.0313	53	1.63	121.30	0
121	Acid Soluble Magnesium (1.2%)	0169	1.365	0.0300	1.184	0.0947	0.0313	53	1.91	121.00	0
121	Acid Soluble Magnesium (1.2%)	0515	1.387	0.0014	1.184	0.0947	0.0313	53	2.14	121.99	0
121	Acid Soluble Magnesium (1.2%)	0472	1.405	0.0100	1.184	0.0947	0.0313	53	2.33	121.30	0
121	Acid Soluble Magnesium (1.2%)	0541	1.530	0.0600	1.184	0.0947	0.0313	53	3.65	121.32	0



Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
121	Acid Soluble Magnesium (1.2%)	0529	1.650	0.1000	1.184	0.0947	0.0313	53	4.92	121.70	0
121	Acid Soluble Magnesium (1.2%)	0309	1.855	0.0100	1.184	0.0947	0.0313	53	7.08	121.00	0
121	Acid Soluble Magnesium (1.2%)	0515	1.268	0.1345	1.184	0.0947	0.0313	53	0.89	121.33	1
131	Water Soluble Magnesium (%)	0476	0.5654	0.0366	1.046	0.2217	0.0572	6	-1.93	131.70	0
131	Water Soluble Magnesium (%)	0444	0.9850	0.0300	1.046	0.2217	0.0572	6	-0.25	131.30	0
131	Water Soluble Magnesium (%)	0029	0.9970	0.0661	1.046	0.2217	0.0572	6	-0.20	131.00	0
131	Water Soluble Magnesium (%)	0309	1.125	0.0100	1.046	0.2217	0.0572	6	0.32	131.00	0
131	Water Soluble Magnesium (%)	0518	1.200	0.2000	1.046	0.2217	0.0572	6	0.62	131.70	0
131	Water Soluble Magnesium (%)	0510	1.257	0.0007	1.046	0.2217	0.0572	6	0.85	131.70	0
143	Elemental Sulfur (%)	0405	1.025	0.1302	3.914	2.385	0.1900	5	-1.21	143.00	0
143	Elemental Sulfur (%)	0106	1.680	0.4800	3.914	2.385	0.1900	5	-0.94	143.00	0
143	Elemental Sulfur (%)	0255	4.991	0.3300	3.914	2.385	0.1900	5	0.45	143.99	0
143	Elemental Sulfur (%)	0472	5.750	0.0000	3.914	2.385	0.1900	5	0.77	143.99	0
143	Elemental Sulfur (%)	0389	6.125	0.0100	3.914	2.385	0.1900	5	0.93	143.99	0
145	Sulfate Sulfur, HCl soluble (%)	0444	3.735	0.1700	4.197	0.3413	0.1109	8	-1.24	145.99	0
145	Sulfate Sulfur, HCl soluble (%)	0106	4.050	0.0400	4.197	0.3413	0.1109	8	-0.39	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0405	4.065	0.0100	4.197	0.3413	0.1109	8	-0.35	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0522	4.075	0.0100	4.197	0.3413	0.1109	8	-0.33	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0444	4.125	0.2100	4.197	0.3413	0.1109	8	-0.19	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0397	4.336	0.0072	4.197	0.3413	0.1109	8	0.37	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0027	4.480	0.2400	4.197	0.3413	0.1109	8	0.76	145.00	0
145	Sulfate Sulfur, HCl soluble (%)	0518	5.300	0.2000	4.197	0.3413	0.1109	8	2.96	145.99	0
148	Total Sulfur (5%)	0541	3.695*	0.0100	5.467	0.8675	0.1420	37	-2.04	148.07	0
148	Total Sulfur (5%)	0394	3.775*	0.0700	5.467	0.8675	0.1420	37	-1.95	148.07	0
148	Total Sulfur (5%)	0444	3.990*	0.0200	5.467	0.8675	0.1420	37	-1.70	148.07	0
148	Total Sulfur (5%)	0513	4.095*	0.0900	5.467	0.8675	0.1420	37	-1.58	148.01	0
148	Total Sulfur (5%)	0476	4.103*	0.0641	5.467	0.8675	0.1420	37	-1.57	148.01	0
148	Total Sulfur (5%)	0324	4.265*	0.2900	5.467	0.8675	0.1420	37	-1.39	148.01	0
148	Total Sulfur (5%)	0096	4.370*	0.1400	5.467	0.8675	0.1420	37	-1.26	148.99	0
148	Total Sulfur (5%)	0354	4.473*	0.0580	5.467	0.8675	0.1420	37	-1.15	148.99	0
148	Total Sulfur (5%)	0444	4.525*	0.1500	5.467	0.8675	0.1420	37	-1.09	148.01	0
148	Total Sulfur (5%)	0515	4.937*	0.2278	5.467	0.8675	0.1420	37	-0.61	148.07	0
148	Total Sulfur (5%)	0519	5.080	0.0400	5.467	0.8675	0.1420	37	-0.45	148.99	0
148	Total Sulfur (5%)	0405	5.090	0.1400	5.467	0.8675	0.1420	37	-0.43	148.01	0
148	Total Sulfur (5%)	0486	5.400	0.0000	5.467	0.8675	0.1420	37	-0.08	148.07	0
148	Total Sulfur (5%)	0501	5.450	0.5000	5.467	0.8675	0.1420	37	-0.02	148.99	0
148	Total Sulfur (5%)	0433	5.509	0.0210	5.467	0.8675	0.1420	37	0.05	148.99	0
148	Total Sulfur (5%)	0102	5.548	0.0532	5.467	0.8675	0.1420	37	0.09	148.07	0
148	Total Sulfur (5%)	0451	5.674	0.0240	5.467	0.8675	0.1420	37	0.24	148.00	0
148	Total Sulfur (5%)	0136	5.820	0.0800	5.467	0.8675	0.1420	37	0.41	148.00	0
148	Total Sulfur (5%)	0368	5.840	0.5299	5.467	0.8675	0.1420	37	0.43	148.99	0
148	Total Sulfur (5%)	0086	5.858	0.0632	5.467	0.8675	0.1420	37	0.45	148.99	0
148	Total Sulfur (5%)	0157	5.915	0.2500	5.467	0.8675	0.1420	37	0.52	148.00	0



Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
148	Total Sulfur (5%)	0523	5.915	0.2700	5.467	0.8675	0.1420	37	0.52	148.99	0
148	Total Sulfur (5%)	0300	5.929	0.0380	5.467	0.8675	0.1420	37	0.53	148.99	0
148	Total Sulfur (5%)	0055	5.985	0.0700	5.467	0.8675	0.1420	37	0.60	148.01	0
148	Total Sulfur (5%)	0506	5.990	0.1600	5.467	0.8675	0.1420	37	0.60	148.99	0
148	Total Sulfur (5%)	0117	6.016	0.0040	5.467	0.8675	0.1420	37	0.63	148.07	0
148	Total Sulfur (5%)	0534	6.055	0.1100	5.467	0.8675	0.1420	37	0.68	148.01	0
148	Total Sulfur (5%)	0482	6.065	0.3700	5.467	0.8675	0.1420	37	0.69	148.99	0
148	Total Sulfur (5%)	0037	6.093	0.0590	5.467	0.8675	0.1420	37	0.72	148.07	0
148	Total Sulfur (5%)	0040	6.100	0.2000	5.467	0.8675	0.1420	37	0.73	148.01	0
148	Total Sulfur (5%)	0025	6.110	0.2530	5.467	0.8675	0.1420	37	0.74	148.00	0
148	Total Sulfur (5%)	0483	6.110	0.1800	5.467	0.8675	0.1420	37	0.74	148.07	0
148	Total Sulfur (5%)	0177	6.138	0.0109	5.467	0.8675	0.1420	37	0.77	148.07	0
148	Total Sulfur (5%)	0029	6.183	0.3020	5.467	0.8675	0.1420	37	0.82	148.00	0
148	Total Sulfur (5%)	0157	6.295	0.0500	5.467	0.8675	0.1420	37	0.95	148.01	0
148	Total Sulfur (5%)	0527	6.322	0.1260	5.467	0.8675	0.1420	37	0.99	148.07	0
148	Total Sulfur (5%)	0072	6.405	0.2300	5.467	0.8675	0.1420	37	1.08	148.99	0
148	Total Sulfur (5%)	0114	4.660*	0.7800	5.467	0.8675	0.1420	37	-0.93	148.01	1
149	Sulfur - HNO3 soluble (%)	0521	5.958	0.0000				2		149.04	0
149	Sulfur - HNO3 soluble (%)	0423	6.005	0.0300				2		149.04	0
151	Acid Soluble Arsenic (ppm)	0501	85.50	9.000	175.8	37.26	3.850	16	-2.42	151.30	0
151	Acid Soluble Arsenic (ppm)	0519	109.4	1.000	175.8	37.26	3.850	16	-1.78	151.99	0
151	Acid Soluble Arsenic (ppm)	0523	141.0	0.2000	175.8	37.26	3.850	16	-0.93	151.30	0
151	Acid Soluble Arsenic (ppm)	0444	147.0	2.000	175.8	37.26	3.850	16	-0.77	151.30	0
151	Acid Soluble Arsenic (ppm)	0541	155.0	0.0000	175.8	37.26	3.850	16	-0.56	151.30	0
151	Acid Soluble Arsenic (ppm)	0476	158.5	1.280	175.8	37.26	3.850	16	-0.47	151.99	0
151	Acid Soluble Arsenic (ppm)	0255	171.9	2.256	175.8	37.26	3.850	16	-0.11	151.30	0
151	Acid Soluble Arsenic (ppm)	0515	183.1	3.509	175.8	37.26	3.850	16	0.20	151.34	0
151	Acid Soluble Arsenic (ppm)	0096	184.1	5.500	175.8	37.26	3.850	16	0.22	151.30	0
151	Acid Soluble Arsenic (ppm)	0515	186.0	1.287	175.8	37.26	3.850	16	0.27	151.33	0
151	Acid Soluble Arsenic (ppm)	0394	195.0	6.600	175.8	37.26	3.850	16	0.51	151.30	0
151	Acid Soluble Arsenic (ppm)	0086	196.2	1.810	175.8	37.26	3.850	16	0.55	151.33	0
151	Acid Soluble Arsenic (ppm)	0300	206.8	4.300	175.8	37.26	3.850	16	0.83	151.32	0
151	Acid Soluble Arsenic (ppm)	0117	207.4	5.200	175.8	37.26	3.850	16	0.85	151.33	0
151	Acid Soluble Arsenic (ppm)	0527	211.9	6.585	175.8	37.26	3.850	16	0.97	151.33	0
151	Acid Soluble Arsenic (ppm)	0037	229.6	11.08	175.8	37.26	3.850	16	1.44	151.33	0
151	Acid Soluble Arsenic (ppm)	0368	195.5	41.00	175.8	37.26	3.850	16	0.53	151.34	1
165	Acid Soluble Boron (0.3%)	0476	0.1275*	0.0010	0.2470	0.0270	0.0111	41	-4.42	165.99	0
165	Acid Soluble Boron (0.3%)	0531	0.1350*	0.0100	0.2470	0.0270	0.0111	41	-4.14	165.00	0
165	Acid Soluble Boron (0.3%)	0513	0.2000*	0.0000	0.2470	0.0270	0.0111	41	-1.74	165.99	0
165	Acid Soluble Boron (0.3%)	0169	0.2119	0.0247	0.2470	0.0270	0.0111	41	-1.30	165.00	0
165	Acid Soluble Boron (0.3%)	0072	0.2160	0.0020	0.2470	0.0270	0.0111	41	-1.15	165.30	0
165	Acid Soluble Boron (0.3%)	0324	0.2190	0.0040	0.2470	0.0270	0.0111	41	-1.03	165.30	0
165	Acid Soluble Boron (0.3%)	0472	0.2200	0.0000	0.2470	0.0270	0.0111	41	-1.00	165.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
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165	Acid Soluble Boron (0.3%)	0029	0.2255	0.0130	0.2470	0.0270	0.0111	41	-0.79	165.00	0
165	Acid Soluble Boron (0.3%)	0397	0.2288	0.0010	0.2470	0.0270	0.0111	41	-0.67	165.00	0
165	Acid Soluble Boron (0.3%)	0037	0.2300	0.0280	0.2470	0.0270	0.0111	41	-0.63	165.30	0
165	Acid Soluble Boron (0.3%)	0444	0.2300	0.0200	0.2470	0.0270	0.0111	41	-0.63	165.30	0
165	Acid Soluble Boron (0.3%)	0506	0.2300	0.0600	0.2470	0.0270	0.0111	41	-0.63	165.00	0
165	Acid Soluble Boron (0.3%)	0482	0.2300	0.0000	0.2470	0.0270	0.0111	41	-0.63	165.99	0
165	Acid Soluble Boron (0.3%)	0535	0.2350	0.0100	0.2470	0.0270	0.0111	41	-0.44	165.00	0
165	Acid Soluble Boron (0.3%)	0539	0.2350	0.0100	0.2470	0.0270	0.0111	41	-0.44	165.00	0
165	Acid Soluble Boron (0.3%)	0423	0.2375	0.0030	0.2470	0.0270	0.0111	41	-0.35	165.99	0
165	Acid Soluble Boron (0.3%)	0117	0.2380	0.0030	0.2470	0.0270	0.0111	41	-0.33	165.99	0
165	Acid Soluble Boron (0.3%)	0300	0.2395	0.0006	0.2470	0.0270	0.0111	41	-0.28	165.99	0
165	Acid Soluble Boron (0.3%)	0055	0.2420	0.0040	0.2470	0.0270	0.0111	41	-0.18	165.00	0
165	Acid Soluble Boron (0.3%)	0521	0.2449	0.0000	0.2470	0.0270	0.0111	41	-0.08	165.30	0
165	Acid Soluble Boron (0.3%)	0540	0.2450	0.0100	0.2470	0.0270	0.0111	41	-0.07	165.00	0
165	Acid Soluble Boron (0.3%)	0368	0.2478	0.0444	0.2470	0.0270	0.0111	41	0.03	165.99	0
165	Acid Soluble Boron (0.3%)	0527	0.2495	0.0130	0.2470	0.0270	0.0111	41	0.09	165.99	0
165	Acid Soluble Boron (0.3%)	0136	0.2500	0.0000	0.2470	0.0270	0.0111	41	0.11	165.30	0
165	Acid Soluble Boron (0.3%)	0394	0.2543	0.0060	0.2470	0.0270	0.0111	41	0.27	165.30	0
165	Acid Soluble Boron (0.3%)	0309	0.2550	0.0300	0.2470	0.0270	0.0111	41	0.30	165.00	0
165	Acid Soluble Boron (0.3%)	0231	0.2600	0.0000	0.2470	0.0270	0.0111	41	0.48	165.99	0
165	Acid Soluble Boron (0.3%)	0291	0.2600	0.0000	0.2470	0.0270	0.0111	41	0.48	165.99	0
165	Acid Soluble Boron (0.3%)	0390	0.2645	0.0109	0.2470	0.0270	0.0111	41	0.65	165.30	0
165	Acid Soluble Boron (0.3%)	0043	0.2650	0.0100	0.2470	0.0270	0.0111	41	0.67	165.99	0
165	Acid Soluble Boron (0.3%)	0519	0.2650	0.0100	0.2470	0.0270	0.0111	41	0.67	165.99	0
165	Acid Soluble Boron (0.3%)	0354	0.2685	0.0070	0.2470	0.0270	0.0111	41	0.80	165.30	0
165	Acid Soluble Boron (0.3%)	0433	0.2685	0.0010	0.2470	0.0270	0.0111	41	0.80	165.30	0
165	Acid Soluble Boron (0.3%)	0515	0.2689	0.0362	0.2470	0.0270	0.0111	41	0.81	165.99	0
165	Acid Soluble Boron (0.3%)	0534	0.2700	0.0000	0.2470	0.0270	0.0111	41	0.85	165.00	0
165	Acid Soluble Boron (0.3%)	0523	0.2750	0.0100	0.2470	0.0270	0.0111	41	1.04	165.99	0
165	Acid Soluble Boron (0.3%)	0360	0.2765	0.0030	0.2470	0.0270	0.0111	41	1.09	165.99	0
165	Acid Soluble Boron (0.3%)	0486	0.2900	0.0200	0.2470	0.0270	0.0111	41	1.59	165.99	0
165	Acid Soluble Boron (0.3%)	0086	0.2983	0.0015	0.2470	0.0270	0.0111	41	1.90	165.30	0
165	Acid Soluble Boron (0.3%)	0501	0.3000	0.0000	0.2470	0.0270	0.0111	41	1.96	165.99	0
165	Acid Soluble Boron (0.3%)	0255	0.3585	0.0490	0.2470	0.0270	0.0111	41	4.13	165.99	0
165	Acid Soluble Boron (0.3%)	0483	2,800	40.00	0.2470	0.0270	0.0111	41	103587.79	165.99	2
171	Water Soluble Boron (%)	0540	0.1005	0.0030	0.1565	0.0587	0.0088	12	-0.95	171.10	0
171	Water Soluble Boron (%)	0537	0.1015	0.0070	0.1565	0.0587	0.0088	12	-0.94	171.10	0
171	Water Soluble Boron (%)	0532	0.1040	0.0020	0.1565	0.0587	0.0088	12	-0.89	171.10	0
171	Water Soluble Boron (%)	0536	0.1050	0.0100	0.1565	0.0587	0.0088	12	-0.88	171.10	0
171	Water Soluble Boron (%)	0533	0.1370	0.0040	0.1565	0.0587	0.0088	12	-0.33	171.10	0
171	Water Soluble Boron (%)	0538	0.1500	0.0200	0.1565	0.0587	0.0088	12	-0.11	171.10	0
171	Water Soluble Boron (%)	0539	0.1550	0.0100	0.1565	0.0587	0.0088	12	-0.02	171.10	0
171	Water Soluble Boron (%)	0531	0.1650	0.0100	0.1565	0.0587	0.0088	12	0.15	171.10	0

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171	Water Soluble Boron (%)	0535	0.1650	0.0100	0.1565	0.0587	0.0088	12	0.15	171.10	0
171	Water Soluble Boron (%)	0486	0.2150	0.0100	0.1565	0.0587	0.0088	12	1.00	171.10	0
171	Water Soluble Boron (%)	0444	0.2350	0.0100	0.1565	0.0587	0.0088	12	1.34	171.99	0
171	Water Soluble Boron (%)	0402	0.2550	0.0100	0.1565	0.0587	0.0088	12	1.68	171.99	0
171	Water Soluble Boron (%)	0518	0.4300	0.0400	0.1565	0.0587	0.0088	12	4.66	171.10	1
181	Acid Soluble Cadmium (ppm)	0501	55.50	5.000	160.6	32.08	4.913	20	-3.27	181.30	0
181	Acid Soluble Cadmium (ppm)	0523	105.7	1.300	160.6	32.08	4.913	20	-1.71	181.30	0
181	Acid Soluble Cadmium (ppm)	0444	108.0	2.000	160.6	32.08	4.913	20	-1.64	181.30	0
181	Acid Soluble Cadmium (ppm)	0519	120.3	0.1000	160.6	32.08	4.913	20	-1.26	181.99	0
181	Acid Soluble Cadmium (ppm)	0255	136.2	6.928	160.6	32.08	4.913	20	-0.76	181.30	0
181	Acid Soluble Cadmium (ppm)	0086	151.4	7.960	160.6	32.08	4.913	20	-0.29	181.33	0
181	Acid Soluble Cadmium (ppm)	0515	156.7	1.375	160.6	32.08	4.913	20	-0.12	181.33	0
181	Acid Soluble Cadmium (ppm)	0476	156.7	0.0100	160.6	32.08	4.913	20	-0.12	181.99	0
181	Acid Soluble Cadmium (ppm)	0515	157.1	4.928	160.6	32.08	4.913	20	-0.11	181.34	0
181	Acid Soluble Cadmium (ppm)	0389	164.5	3.000	160.6	32.08	4.913	20	0.12	181.30	0
181	Acid Soluble Cadmium (ppm)	0506	167.5	1.000	160.6	32.08	4.913	20	0.22	181.99	0
181	Acid Soluble Cadmium (ppm)	0117	171.8	0.1000	160.6	32.08	4.913	20	0.35	181.33	0
181	Acid Soluble Cadmium (ppm)	0300	176.9	4.100	160.6	32.08	4.913	20	0.51	181.32	0
181	Acid Soluble Cadmium (ppm)	0368	178.5	23.00	160.6	32.08	4.913	20	0.56	181.34	0
181	Acid Soluble Cadmium (ppm)	0096	182.0	1.300	160.6	32.08	4.913	20	0.67	181.30	0
181	Acid Soluble Cadmium (ppm)	0482	185.5	1.000	160.6	32.08	4.913	20	0.78	181.30	0
181	Acid Soluble Cadmium (ppm)	0037	188.7	16.67	160.6	32.08	4.913	20	0.88	181.33	0
181	Acid Soluble Cadmium (ppm)	0541	189.5	9.000	160.6	32.08	4.913	20	0.90	181.30	0
181	Acid Soluble Cadmium (ppm)	0394	194.5	9.000	160.6	32.08	4.913	20	1.06	181.30	0
181	Acid Soluble Cadmium (ppm)	0527	196.3	0.4920	160.6	32.08	4.913	20	1.12	181.33	0
181	Acid Soluble Cadmium (ppm)	0035	160.0	30.00	160.6	32.08	4.913	20	-0.02	181.30	1
191	Acid Soluble Chromium (ppm)	0501	210.5	15.00	367.2	68.41	10.90	19	-2.29	191.30	0
191	Acid Soluble Chromium (ppm)	0444	276.5	9.000	367.2	68.41	10.90	19	-1.33	191.30	0
191	Acid Soluble Chromium (ppm)	0476	290.3	18.59	367.2	68.41	10.90	19	-1.12	191.99	0
191	Acid Soluble Chromium (ppm)	0519	291.0	0.9700	367.2	68.41	10.90	19	-1.11	191.99	0
191	Acid Soluble Chromium (ppm)	0523	301.5	3.200	367.2	68.41	10.90	19	-0.96	191.30	0
191	Acid Soluble Chromium (ppm)	0506	330.0	14.00	367.2	68.41	10.90	19	-0.54	191.99	0
191	Acid Soluble Chromium (ppm)	0394	339.0	8.000	367.2	68.41	10.90	19	-0.41	191.30	0
191	Acid Soluble Chromium (ppm)	0482	350.5	3.000	367.2	68.41	10.90	19	-0.24	191.30	0
191	Acid Soluble Chromium (ppm)	0035	373.0	38.00	367.2	68.41	10.90	19	0.08	191.30	0
191	Acid Soluble Chromium (ppm)	0086	375.0	8.890	367.2	68.41	10.90	19	0.11	191.33	0
191	Acid Soluble Chromium (ppm)	0515	392.6	3.798	367.2	68.41	10.90	19	0.37	191.34	0
191	Acid Soluble Chromium (ppm)	0515	406.2	4.982	367.2	68.41	10.90	19	0.57	191.33	0
191	Acid Soluble Chromium (ppm)	0389	411.5	7.000	367.2	68.41	10.90	19	0.65	191.30	0
191	Acid Soluble Chromium (ppm)	0117	412.0	2.200	367.2	68.41	10.90	19	0.65	191.33	0
191	Acid Soluble Chromium (ppm)	0300	421.2	3.800	367.2	68.41	10.90	19	0.79	191.32	0
191	Acid Soluble Chromium (ppm)	0541	423.0	36.00	367.2	68.41	10.90	19	0.82	191.30	0
191	Acid Soluble Chromium (ppm)	0527	433.4	7.020	367.2	68.41	10.90	19	0.97	191.33	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
191	Acid Soluble Chromium (ppm)	0096	436.2	17.10	367.2	68.41	10.90	19	1.01	191.30	0
191	Acid Soluble Chromium (ppm)	0037	450.1	6.588	367.2	68.41	10.90	19	1.21	191.33	0
191	Acid Soluble Chromium (ppm)	0368	410.0	88.00	367.2	68.41	10.90	19	0.63	191.34	1
202	Acid Soluble Cobalt (ppm)	0501	153.5	7.000	287.6	40.54	7.342	18	-3.31	202.34	0
202	Acid Soluble Cobalt (ppm)	0523	186.4	8.400	287.6	40.54	7.342	18	-2.50	202.30	0
202	Acid Soluble Cobalt (ppm)	0482	240.0	6.000	287.6	40.54	7.342	18	-1.17	202.30	0
202	Acid Soluble Cobalt (ppm)	0476	242.6	3.120	287.6	40.54	7.342	18	-1.11	202.99	0
202	Acid Soluble Cobalt (ppm)	0255	254.4	17.47	287.6	40.54	7.342	18	-0.82	202.99	0
202	Acid Soluble Cobalt (ppm)	0086	276.4	5.390	287.6	40.54	7.342	18	-0.28	202.33	0
202	Acid Soluble Cobalt (ppm)	0423	283.0	2.000	287.6	40.54	7.342	18	-0.11	202.32	0
202	Acid Soluble Cobalt (ppm)	0515	289.4	3.243	287.6	40.54	7.342	18	0.04	202.33	0
202	Acid Soluble Cobalt (ppm)	0515	291.1	7.448	287.6	40.54	7.342	18	0.09	202.34	0
202	Acid Soluble Cobalt (ppm)	0035	296.0	20.00	287.6	40.54	7.342	18	0.21	202.30	0
202	Acid Soluble Cobalt (ppm)	0389	308.0	10.00	287.6	40.54	7.342	18	0.50	202.30	0
202	Acid Soluble Cobalt (ppm)	0506	309.0	16.00	287.6	40.54	7.342	18	0.53	202.99	0
202	Acid Soluble Cobalt (ppm)	0519	309.6	0.8100	287.6	40.54	7.342	18	0.54	202.99	0
202	Acid Soluble Cobalt (ppm)	0300	312.6	3.200	287.6	40.54	7.342	18	0.62	202.32	0
202	Acid Soluble Cobalt (ppm)	0117	320.1	5.200	287.6	40.54	7.342	18	0.80	202.33	0
202	Acid Soluble Cobalt (ppm)	0527	323.3	8.450	287.6	40.54	7.342	18	0.88	202.33	0
202	Acid Soluble Cobalt (ppm)	0096	327.0	1.600	287.6	40.54	7.342	18	0.97	202.30	0
202	Acid Soluble Cobalt (ppm)	0037	340.9	6.818	287.6	40.54	7.342	18	1.31	202.33	0
202	Acid Soluble Cobalt (ppm)	0368	309.5	63.00	287.6	40.54	7.342	18	0.54	202.34	1
221	Acid Soluble Copper (0.1%)	0476	0.01800*	0.0000	0.0264	0.0035	0.0020	39	-2.40	221.99	0
221	Acid Soluble Copper (0.1%)	0255	0.01850*	0.0010	0.0264	0.0035	0.0020	39	-2.25	221.30	0
221	Acid Soluble Copper (0.1%)	0433	0.0215	0.0010	0.0264	0.0035	0.0020	39	-1.40	221.30	0
221	Acid Soluble Copper (0.1%)	0515	0.0224	0.0013	0.0264	0.0035	0.0020	39	-1.16	221.33	0
221	Acid Soluble Copper (0.1%)	0035	0.0226	0.0004	0.0264	0.0035	0.0020	39	-1.09	221.30	0
221	Acid Soluble Copper (0.1%)	0324	0.0229	0.0007	0.0264	0.0035	0.0020	39	-1.02	221.30	0
221	Acid Soluble Copper (0.1%)	0521	0.0231	0.0000	0.0264	0.0035	0.0020	39	-0.94	221.32	0
221	Acid Soluble Copper (0.1%)	0360	0.0233	0.0006	0.0264	0.0035	0.0020	39	-0.89	221.30	0
221	Acid Soluble Copper (0.1%)	0541	0.0241	0.0032	0.0264	0.0035	0.0020	39	-0.66	221.30	0
221	Acid Soluble Copper (0.1%)	0300	0.0242	0.0001	0.0264	0.0035	0.0020	39	-0.65	221.32	0
221	Acid Soluble Copper (0.1%)	0177	0.0246	0.0012	0.0264	0.0035	0.0020	39	-0.52	221.33	0
221	Acid Soluble Copper (0.1%)	0029	0.0248	0.0017	0.0264	0.0035	0.0020	39	-0.47	221.00	0
221	Acid Soluble Copper (0.1%)	0086	0.0249	0.0013	0.0264	0.0035	0.0020	39	-0.45	221.33	0
221	Acid Soluble Copper (0.1%)	0117	0.0249	0.0035	0.0264	0.0035	0.0020	39	-0.45	221.33	0
221	Acid Soluble Copper (0.1%)	0527	0.0250	0.0000	0.0264	0.0035	0.0020	39	-0.40	221.33	0
221	Acid Soluble Copper (0.1%)	0389	0.0250	0.0020	0.0264	0.0035	0.0020	39	-0.40	221.99	0
221	Acid Soluble Copper (0.1%)	0523	0.0250	0.0100	0.0264	0.0035	0.0020	39	-0.40	221.99	0
221	Acid Soluble Copper (0.1%)	0106	0.0255	0.0003	0.0264	0.0035	0.0020	39	-0.28	221.33	0
221	Acid Soluble Copper (0.1%)	0055	0.0260	0.0000	0.0264	0.0035	0.0020	39	-0.12	221.33	0
221	Acid Soluble Copper (0.1%)	0157	0.0260	0.0040	0.0264	0.0035	0.0020	39	-0.12	221.30	0
221	Acid Soluble Copper (0.1%)	0444	0.0260	0.0020	0.0264	0.0035	0.0020	39	-0.12	221.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
221	Acid Soluble Copper (0.1%)	0394	0.0261	0.0002	0.0264	0.0035	0.0020	39	-0.09	221.32	0
221	Acid Soluble Copper (0.1%)	0102	0.0265	0.0000	0.0264	0.0035	0.0020	39	0.02	221.30	0
221	Acid Soluble Copper (0.1%)	0368	0.0274	0.0034	0.0264	0.0035	0.0020	39	0.28	221.99	0
221	Acid Soluble Copper (0.1%)	0096	0.0279	0.0008	0.0264	0.0035	0.0020	39	0.42	221.30	0
221	Acid Soluble Copper (0.1%)	0027	0.0280	0.0020	0.0264	0.0035	0.0020	39	0.45	221.99	0
221	Acid Soluble Copper (0.1%)	0390	0.0283	0.0014	0.0264	0.0035	0.0020	39	0.54	221.99	0
221	Acid Soluble Copper (0.1%)	0040	0.0290	0.0005	0.0264	0.0035	0.0020	39	0.72	221.00	0
221	Acid Soluble Copper (0.1%)	0354	0.0290	0.0020	0.0264	0.0035	0.0020	39	0.74	221.30	0
221	Acid Soluble Copper (0.1%)	0515	0.0294	0.0087	0.0264	0.0035	0.0020	39	0.83	221.99	0
221	Acid Soluble Copper (0.1%)	0136	0.0300	0.0000	0.0264	0.0035	0.0020	39	1.02	221.30	0
221	Acid Soluble Copper (0.1%)	0231	0.0300	0.0000	0.0264	0.0035	0.0020	39	1.02	221.30	0
221	Acid Soluble Copper (0.1%)	0402	0.0300	0.0000	0.0264	0.0035	0.0020	39	1.02	221.30	0
221	Acid Soluble Copper (0.1%)	0472	0.0300	0.0000	0.0264	0.0035	0.0020	39	1.02	221.30	0
221	Acid Soluble Copper (0.1%)	0482	0.0300	0.0000	0.0264	0.0035	0.0020	39	1.02	221.30	0
221	Acid Soluble Copper (0.1%)	0486	0.0300	0.0000	0.0264	0.0035	0.0020	39	1.02	221.33	0
221	Acid Soluble Copper (0.1%)	0485	0.0325	0.0029	0.0264	0.0035	0.0020	39	1.72	221.00	0
221	Acid Soluble Copper (0.1%)	0531	0.0542	0.0019	0.0264	0.0035	0.0020	39	7.89	221.00	0
221	Acid Soluble Copper (0.1%)	0519	0.1000	0.0200	0.0264	0.0035	0.0020	39	20.95	221.99	0
221	Acid Soluble Copper (0.1%)	0483	273.5	19.00	0.0264	0.0035	0.0020	39	77855.08	221.30	1
221	Acid Soluble Copper (0.1%)	0423	515.0	30.00	0.0264	0.0035	0.0020	39	146607.61	221.32	2
241	Acid Soluble Iron (0.5%)	0476	0.3730*	0.0080	0.5500	0.0459	0.0163	49	-3.85	241.99	0
241	Acid Soluble Iron (0.5%)	0513	0.4300*	0.0200	0.5500	0.0459	0.0163	49	-2.61	241.00	0
241	Acid Soluble Iron (0.5%)	0519	0.4350*	0.0100	0.5500	0.0459	0.0163	49	-2.50	241.99	0
241	Acid Soluble Iron (0.5%)	0534	0.4500*	0.0200	0.5500	0.0459	0.0163	49	-2.18	241.00	0
241	Acid Soluble Iron (0.5%)	0356	0.4930	0.0100	0.5500	0.0459	0.0163	49	-1.24	241.00	0
241	Acid Soluble Iron (0.5%)	0255	0.4950	0.0200	0.5500	0.0459	0.0163	49	-1.20	241.30	0
241	Acid Soluble Iron (0.5%)	0300	0.4963	0.0005	0.5500	0.0459	0.0163	49	-1.17	241.32	0
241	Acid Soluble Iron (0.5%)	0516	0.4997	0.0054	0.5500	0.0459	0.0163	49	-1.10	241.00	0
241	Acid Soluble Iron (0.5%)	0402	0.5050	0.0100	0.5500	0.0459	0.0163	49	-0.98	241.30	0
241	Acid Soluble Iron (0.5%)	0531	0.5143	0.0049	0.5500	0.0459	0.0163	49	-0.78	241.00	0
241	Acid Soluble Iron (0.5%)	0515	0.5144	0.0080	0.5500	0.0459	0.0163	49	-0.78	241.33	0
241	Acid Soluble Iron (0.5%)	0501	0.5150	0.0700	0.5500	0.0459	0.0163	49	-0.76	241.99	0
241	Acid Soluble Iron (0.5%)	0521	0.5213	0.0000	0.5500	0.0459	0.0163	49	-0.62	241.32	0
241	Acid Soluble Iron (0.5%)	0433	0.5250	0.0040	0.5500	0.0459	0.0163	49	-0.54	241.30	0
241	Acid Soluble Iron (0.5%)	0397	0.5280	0.0190	0.5500	0.0459	0.0163	49	-0.48	241.33	0
241	Acid Soluble Iron (0.5%)	0472	0.5300	0.0000	0.5500	0.0459	0.0163	49	-0.44	241.30	0
241	Acid Soluble Iron (0.5%)	0506	0.5300	0.0000	0.5500	0.0459	0.0163	49	-0.44	241.99	0
241	Acid Soluble Iron (0.5%)	0423	0.5330	0.0240	0.5500	0.0459	0.0163	49	-0.37	241.32	0
241	Acid Soluble Iron (0.5%)	0486	0.5350	0.0100	0.5500	0.0459	0.0163	49	-0.33	241.33	0
241	Acid Soluble Iron (0.5%)	0086	0.5370	0.0085	0.5500	0.0459	0.0163	49	-0.28	241.33	0
241	Acid Soluble Iron (0.5%)	0102	0.5455	0.0124	0.5500	0.0459	0.0163	49	-0.10	241.30	0
241	Acid Soluble Iron (0.5%)	0515	0.5455	0.0238	0.5500	0.0459	0.0163	49	-0.10	241.99	0
241	Acid Soluble Iron (0.5%)	0035	0.5480	0.0120	0.5500	0.0459	0.0163	49	-0.04	241.30	0



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241	Acid Soluble Iron (0.5%)	0106	0.5510	0.0550	0.5500	0.0459	0.0163	49	0.02	241.33	0
241	Acid Soluble Iron (0.5%)	0117	0.5540	0.0069	0.5500	0.0459	0.0163	49	0.09	241.33	0
241	Acid Soluble Iron (0.5%)	0527	0.5545	0.0230	0.5500	0.0459	0.0163	49	0.10	241.33	0
241	Acid Soluble Iron (0.5%)	0027	0.5560	0.0200	0.5500	0.0459	0.0163	49	0.13	241.99	0
241	Acid Soluble Iron (0.5%)	0324	0.5570	0.0220	0.5500	0.0459	0.0163	49	0.15	241.30	0
241	Acid Soluble Iron (0.5%)	0371	0.5600	0.0000	0.5500	0.0459	0.0163	49	0.22	241.30	0
241	Acid Soluble Iron (0.5%)	0523	0.5600	0.0400	0.5500	0.0459	0.0163	49	0.22	241.99	0
241	Acid Soluble Iron (0.5%)	0034	0.5645	0.0030	0.5500	0.0459	0.0163	49	0.32	241.33	0
241	Acid Soluble Iron (0.5%)	0096	0.5650	0.0100	0.5500	0.0459	0.0163	49	0.33	241.30	0
241	Acid Soluble Iron (0.5%)	0444	0.5650	0.0100	0.5500	0.0459	0.0163	49	0.33	241.30	0
241	Acid Soluble Iron (0.5%)	0029	0.5678	0.0156	0.5500	0.0459	0.0163	49	0.39	241.00	0
241	Acid Soluble Iron (0.5%)	0389	0.5680	0.0120	0.5500	0.0459	0.0163	49	0.39	241.99	0
241	Acid Soluble Iron (0.5%)	0055	0.5750	0.0100	0.5500	0.0459	0.0163	49	0.54	241.33	0
241	Acid Soluble Iron (0.5%)	0177	0.5762	0.0095	0.5500	0.0459	0.0163	49	0.57	241.33	0
241	Acid Soluble Iron (0.5%)	0354	0.5825	0.0230	0.5500	0.0459	0.0163	49	0.71	241.30	0
241	Acid Soluble Iron (0.5%)	0157	0.5855	0.0550	0.5500	0.0459	0.0163	49	0.77	241.30	0
241	Acid Soluble Iron (0.5%)	0037	0.5955	0.0090	0.5500	0.0459	0.0163	49	0.99	241.33	0
241	Acid Soluble Iron (0.5%)	0485	0.5996	0.0283	0.5500	0.0459	0.0163	49	1.08	241.00	0
241	Acid Soluble Iron (0.5%)	0368	0.5997	0.0290	0.5500	0.0459	0.0163	49	1.08	241.99	0
241	Acid Soluble Iron (0.5%)	0482	0.6000	0.0200	0.5500	0.0459	0.0163	49	1.09	241.30	0
241	Acid Soluble Iron (0.5%)	0231	0.6050	0.0300	0.5500	0.0459	0.0163	49	1.20	241.30	0
241	Acid Soluble Iron (0.5%)	0360	0.6065	0.0030	0.5500	0.0459	0.0163	49	1.23	241.30	0
241	Acid Soluble Iron (0.5%)	0136	0.6100	0.0000	0.5500	0.0459	0.0163	49	1.31	241.33	0
241	Acid Soluble Iron (0.5%)	0390	0.6270	0.0021	0.5500	0.0459	0.0163	49	1.68	241.30	0
241	Acid Soluble Iron (0.5%)	0234	0.6400	0.0200	0.5500	0.0459	0.0163	49	1.96	241.30	0
241	Acid Soluble Iron (0.5%)	0541	0.7300	0.0400	0.5500	0.0459	0.0163	49	3.92	241.32	0
241	Acid Soluble Iron (0.5%)	0483	6,255	10.00	0.5500	0.0459	0.0163	49	136184.26	241.30	2
251	Acid Soluble Lead (ppm)	0501	381.5	13.00	830.9	197.1	24.22	20	-2.28	251.30	0
251	Acid Soluble Lead (ppm)	0523	549.8	23.20	830.9	197.1	24.22	20	-1.43	251.30	0
251	Acid Soluble Lead (ppm)	0444	561.0	26.00	830.9	197.1	24.22	20	-1.37	251.30	0
251	Acid Soluble Lead (ppm)	0519	569.7	0.6600	830.9	197.1	24.22	20	-1.33	251.99	0
251	Acid Soluble Lead (ppm)	0482	686.5	29.00	830.9	197.1	24.22	20	-0.73	251.30	0
251	Acid Soluble Lead (ppm)	0476	732.1	2.660	830.9	197.1	24.22	20	-0.50	251.99	0
251	Acid Soluble Lead (ppm)	0394	735.5	27.00	830.9	197.1	24.22	20	-0.48	251.30	0
251	Acid Soluble Lead (ppm)	0086	825.1	30.99	830.9	197.1	24.22	20	-0.03	251.33	0
251	Acid Soluble Lead (ppm)	0035	842.5	71.00	830.9	197.1	24.22	20	0.06	251.30	0
251	Acid Soluble Lead (ppm)	0527	899.5	12.19	830.9	197.1	24.22	20	0.35	251.33	0
251	Acid Soluble Lead (ppm)	0300	906.9	24.10	830.9	197.1	24.22	20	0.39	251.32	0
251	Acid Soluble Lead (ppm)	0255	907.9	5.076	830.9	197.1	24.22	20	0.39	251.30	0
251	Acid Soluble Lead (ppm)	0117	917.5	5.600	830.9	197.1	24.22	20	0.44	251.33	0
251	Acid Soluble Lead (ppm)	0096	925.9	2.000	830.9	197.1	24.22	20	0.48	251.30	0
251	Acid Soluble Lead (ppm)	0541	950.0	116.0	830.9	197.1	24.22	20	0.60	251.30	0
251	Acid Soluble Lead (ppm)	0368	963.0	14.00	830.9	197.1	24.22	20	0.67	251.34	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
251	Acid Soluble Lead (ppm)	0506	980.5	15.00	830.9	197.1	24.22	20	0.76	251.99	0
251	Acid Soluble Lead (ppm)	0389	993.0	18.00	830.9	197.1	24.22	20	0.82	251.30	0
251	Acid Soluble Lead (ppm)	0037	1,046	19.92	830.9	197.1	24.22	20	1.09	251.33	0
251	Acid Soluble Lead (ppm)	0515	1,090	29.02	830.9	197.1	24.22	20	1.32	251.34	0
251	Acid Soluble Lead (ppm)	0515	1,100	121.7	830.9	197.1	24.22	20	1.37	251.33	1
261	Acid Soluble Manganese (0.3%)	0515	0.01420*	0.0186	0.0262	0.0034	0.0097	41	-3.59	261.35	0
261	Acid Soluble Manganese (0.3%)	0472	0.0200	0.0000	0.0262	0.0034	0.0097	41	-1.86	261.30	0
261	Acid Soluble Manganese (0.3%)	0476	0.0200	0.0000	0.0262	0.0034	0.0097	41	-1.86	261.99	0
261	Acid Soluble Manganese (0.3%)	0521	0.0228	0.0000	0.0262	0.0034	0.0097	41	-1.02	261.34	0
261	Acid Soluble Manganese (0.3%)	0433	0.0230	0.0000	0.0262	0.0034	0.0097	41	-0.96	261.30	0
261	Acid Soluble Manganese (0.3%)	0255	0.0230	0.0020	0.0262	0.0034	0.0097	41	-0.96	261.99	0
261	Acid Soluble Manganese (0.3%)	0106	0.0232	0.0011	0.0262	0.0034	0.0097	41	-0.92	261.35	0
261	Acid Soluble Manganese (0.3%)	0029	0.0242	0.0032	0.0262	0.0034	0.0097	41	-0.61	261.12	0
261	Acid Soluble Manganese (0.3%)	0035	0.0242	0.0010	0.0262	0.0034	0.0097	41	-0.61	261.30	0
261	Acid Soluble Manganese (0.3%)	0354	0.0245	0.0010	0.0262	0.0034	0.0097	41	-0.52	261.30	0
261	Acid Soluble Manganese (0.3%)	0394	0.0245	0.0010	0.0262	0.0034	0.0097	41	-0.52	261.34	0
261	Acid Soluble Manganese (0.3%)	0389	0.0245	0.0010	0.0262	0.0034	0.0097	41	-0.52	261.99	0
261	Acid Soluble Manganese (0.3%)	0324	0.0246	0.0027	0.0262	0.0034	0.0097	41	-0.50	261.31	0
261	Acid Soluble Manganese (0.3%)	0541	0.0248	0.0016	0.0262	0.0034	0.0097	41	-0.43	261.32	0
261	Acid Soluble Manganese (0.3%)	0157	0.0250	0.0000	0.0262	0.0034	0.0097	41	-0.37	261.30	0
261	Acid Soluble Manganese (0.3%)	0136	0.0250	0.0100	0.0262	0.0034	0.0097	41	-0.37	261.35	0
261	Acid Soluble Manganese (0.3%)	0523	0.0250	0.0100	0.0262	0.0034	0.0097	41	-0.37	261.99	0
261	Acid Soluble Manganese (0.3%)	0177	0.0251	0.0024	0.0262	0.0034	0.0097	41	-0.34	261.35	0
261	Acid Soluble Manganese (0.3%)	0515	0.0253	0.0060	0.0262	0.0034	0.0097	41	-0.28	261.99	0
261	Acid Soluble Manganese (0.3%)	0096	0.0256	0.0007	0.0262	0.0034	0.0097	41	-0.20	261.30	0
261	Acid Soluble Manganese (0.3%)	0444	0.0260	0.0000	0.0262	0.0034	0.0097	41	-0.07	261.32	0
261	Acid Soluble Manganese (0.3%)	0360	0.0261	0.0012	0.0262	0.0034	0.0097	41	-0.04	261.31	0
261	Acid Soluble Manganese (0.3%)	0102	0.0263	0.0009	0.0262	0.0034	0.0097	41	0.01	261.30	0
261	Acid Soluble Manganese (0.3%)	0086	0.0263	0.0011	0.0262	0.0034	0.0097	41	0.01	261.33	0
261	Acid Soluble Manganese (0.3%)	0300	0.0264	0.0002	0.0262	0.0034	0.0097	41	0.05	261.34	0
261	Acid Soluble Manganese (0.3%)	0040	0.0265	0.0050	0.0262	0.0034	0.0097	41	0.08	261.12	0
261	Acid Soluble Manganese (0.3%)	0117	0.0265	0.0004	0.0262	0.0034	0.0097	41	0.08	261.35	0
261	Acid Soluble Manganese (0.3%)	0527	0.0265	0.0030	0.0262	0.0034	0.0097	41	0.08	261.35	0
261	Acid Soluble Manganese (0.3%)	0368	0.0268	0.0027	0.0262	0.0034	0.0097	41	0.15	261.99	0
261	Acid Soluble Manganese (0.3%)	0423	0.0275	0.0010	0.0262	0.0034	0.0097	41	0.38	261.34	0
261	Acid Soluble Manganese (0.3%)	0027	0.0275	0.0010	0.0262	0.0034	0.0097	41	0.38	261.99	0
261	Acid Soluble Manganese (0.3%)	0531	0.0277	0.0020	0.0262	0.0034	0.0097	41	0.44	261.12	0
261	Acid Soluble Manganese (0.3%)	0482	0.0300	0.0000	0.0262	0.0034	0.0097	41	1.12	261.31	0
261	Acid Soluble Manganese (0.3%)	0486	0.0300	0.0000	0.0262	0.0034	0.0097	41	1.12	261.35	0
261	Acid Soluble Manganese (0.3%)	0485	0.0303	0.0059	0.0262	0.0034	0.0097	41	1.20	261.12	0
261	Acid Soluble Manganese (0.3%)	0390	0.0314	0.0018	0.0262	0.0034	0.0097	41	1.54	261.30	0
261	Acid Soluble Manganese (0.3%)	0402	0.0350	0.0100	0.0262	0.0034	0.0097	41	2.62	261.32	0
261	Acid Soluble Manganese (0.3%)	0291	0.1100	0.0000	0.0262	0.0034	0.0097	41	25.00	261.30	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
261	Acid Soluble Manganese (0.3%)	0231	0.1650	0.2700	0.0262	0.0034	0.0097	41	41.41	261.32	0
261	Acid Soluble Manganese (0.3%)	0519	0.2700	0.0000	0.0262	0.0034	0.0097	41	72.74	261.99	0
261	Acid Soluble Manganese (0.3%)	0055	0.2750	0.0300	0.0262	0.0034	0.0097	41	74.23	261.35	0
261	Acid Soluble Manganese (0.3%)	0483	163.5	13.00	0.0262	0.0034	0.0097	41	48779.31	261.32	2
271	Water Soluble Manganese (%)	0444	0.0130	0.0000	0.0135	0.0005	0.0010	3	-1.00	271.30	0
271	Water Soluble Manganese (%)	0486	0.0135	0.0010	0.0135	0.0005	0.0010	3	0.00	271.30	0
271	Water Soluble Manganese (%)	0027	0.0140	0.0020	0.0135	0.0005	0.0010	3	1.00	271.00	0
281	Acid Soluble Mercury (ppm)	0515	0.0085	0.0010	18.17	15.63	1.047	7	-1.05	281.30	0
281	Acid Soluble Mercury (ppm)	0541	2.975	0.4500	18.17	15.63	1.047	7	-0.88	281.30	0
281	Acid Soluble Mercury (ppm)	0519	8.780	0.0400	18.17	15.63	1.047	7	-0.54	281.99	0
281	Acid Soluble Mercury (ppm)	0117	25.59	2.690	18.17	15.63	1.047	7	0.43	281.00	0
281	Acid Soluble Mercury (ppm)	0394	27.45	2.210	18.17	15.63	1.047	7	0.54	281.30	0
281	Acid Soluble Mercury (ppm)	0476	29.11	0.7400	18.17	15.63	1.047	7	0.63	281.99	0
281	Acid Soluble Mercury (ppm)	0527	33.32	1.199	18.17	15.63	1.047	7	0.88	281.30	0
289	Acid Soluble Molybdenum (100ppm)	0027	0.07450*	0.0030	617.9	103.6	23.71	25	-5.96	289.99	0
289	Acid Soluble Molybdenum (100ppm)	0519	249.0*	2.000	617.9	103.6	23.71	25	-3.56	289.30	0
289	Acid Soluble Molybdenum (100ppm)	0501	286.7*	24.40	617.9	103.6	23.71	25	-3.20	289.34	0
289	Acid Soluble Molybdenum (100ppm)	0433	525.0	10.00	617.9	103.6	23.71	25	-0.90	289.30	0
289	Acid Soluble Molybdenum (100ppm)	0515	547.8	31.74	617.9	103.6	23.71	25	-0.68	289.33	0
289	Acid Soluble Molybdenum (100ppm)	0521	566.6	0.0000	617.9	103.6	23.71	25	-0.50	289.30	0
289	Acid Soluble Molybdenum (100ppm)	0486	569.0	42.00	617.9	103.6	23.71	25	-0.47	289.33	0
289	Acid Soluble Molybdenum (100ppm)	0035	570.5	19.00	617.9	103.6	23.71	25	-0.46	289.30	0
289	Acid Soluble Molybdenum (100ppm)	0255	576.5	39.50	617.9	103.6	23.71	25	-0.40	289.30	0
289	Acid Soluble Molybdenum (100ppm)	0541	578.0	24.00	617.9	103.6	23.71	25	-0.39	289.30	0
289	Acid Soluble Molybdenum (100ppm)	0086	590.2	14.19	617.9	103.6	23.71	25	-0.27	289.33	0
289	Acid Soluble Molybdenum (100ppm)	0394	592.0	0.0000	617.9	103.6	23.71	25	-0.25	289.32	0
289	Acid Soluble Molybdenum (100ppm)	0523	610.0	29.50	617.9	103.6	23.71	25	-0.08	289.30	0
289	Acid Soluble Molybdenum (100ppm)	0423	615.0	6.000	617.9	103.6	23.71	25	-0.03	289.33	0
289	Acid Soluble Molybdenum (100ppm)	0300	635.6	21.30	617.9	103.6	23.71	25	0.17	289.32	0
289	Acid Soluble Molybdenum (100ppm)	0476	636.7	15.99	617.9	103.6	23.71	25	0.18	289.99	0
289	Acid Soluble Molybdenum (100ppm)	0444	665.0	10.00	617.9	103.6	23.71	25	0.45	289.30	0
289	Acid Soluble Molybdenum (100ppm)	0117	672.8	26.70	617.9	103.6	23.71	25	0.53	289.33	0
289	Acid Soluble Molybdenum (100ppm)	0096	682.5	59.00	617.9	103.6	23.71	25	0.62	289.30	0
289	Acid Soluble Molybdenum (100ppm)	0102	696.5	52.00	617.9	103.6	23.71	25	0.76	289.30	0
289	Acid Soluble Molybdenum (100ppm)	0037	700.0	20.00	617.9	103.6	23.71	25	0.79	289.33	0
289	Acid Soluble Molybdenum (100ppm)	0515	735.5	47.59	617.9	103.6	23.71	25	1.13	289.34	0
289	Acid Soluble Molybdenum (100ppm)	0527	748.9	13.96	617.9	103.6	23.71	25	1.26	289.33	0
289	Acid Soluble Molybdenum (100ppm)	0106	784.5	81.00	617.9	103.6	23.71	25	1.61	289.33	0
289	Acid Soluble Molybdenum (100ppm)	0506	875.5	3.000	617.9	103.6	23.71	25	2.49	289.99	0
289	Acid Soluble Molybdenum (100ppm)	0368	654.5	125.0	617.9	103.6	23.71	25	0.35	289.34	1
291	Acid Soluble Nickel (ppm)	0501	8.765	2.630	21.89	7.078	2.462	19	-1.85	291.34	0
291	Acid Soluble Nickel (ppm)	0519	11.60	0.0100	21.89	7.078	2.462	19	-1.45	291.99	0
291	Acid Soluble Nickel (ppm)	0476	12.97	0.2600	21.89	7.078	2.462	19	-1.26	291.99	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
291	Acid Soluble Nickel (ppm)	0444	14.95	0.4000	21.89	7.078	2.462	19	-0.98	291.30	0
291	Acid Soluble Nickel (ppm)	0482	17.10	0.2000	21.89	7.078	2.462	19	-0.68	291.30	0
291	Acid Soluble Nickel (ppm)	0521	18.39	0.0000	21.89	7.078	2.462	19	-0.49	291.30	0
291	Acid Soluble Nickel (ppm)	0394	19.30	1.000	21.89	7.078	2.462	19	-0.37	291.30	0
291	Acid Soluble Nickel (ppm)	0541	19.36	1.280	21.89	7.078	2.462	19	-0.36	291.30	0
291	Acid Soluble Nickel (ppm)	0117	22.29	3.710	21.89	7.078	2.462	19	0.06	291.33	0
291	Acid Soluble Nickel (ppm)	0300	23.68	0.9700	21.89	7.078	2.462	19	0.25	291.32	0
291	Acid Soluble Nickel (ppm)	0255	24.20	11.28	21.89	7.078	2.462	19	0.33	291.99	0
291	Acid Soluble Nickel (ppm)	0368	24.50	3.000	21.89	7.078	2.462	19	0.37	291.34	0
291	Acid Soluble Nickel (ppm)	0527	26.26	0.2870	21.89	7.078	2.462	19	0.62	291.33	0
291	Acid Soluble Nickel (ppm)	0515	26.92	3.565	21.89	7.078	2.462	19	0.71	291.33	0
291	Acid Soluble Nickel (ppm)	0096	26.95	0.9000	21.89	7.078	2.462	19	0.72	291.30	0
291	Acid Soluble Nickel (ppm)	0506	27.45	0.9000	21.89	7.078	2.462	19	0.79	291.99	0
291	Acid Soluble Nickel (ppm)	0037	27.75	10.75	21.89	7.078	2.462	19	0.83	291.33	0
291	Acid Soluble Nickel (ppm)	0035	28.45	0.5000	21.89	7.078	2.462	19	0.93	291.30	0
291	Acid Soluble Nickel (ppm)	0515	34.22	5.127	21.89	7.078	2.462	19	1.74	291.34	0
291	Acid Soluble Nickel (ppm)	0086	27.49	14.46	21.89	7.078	2.462	19	0.79	291.33	1
301	Acid Soluble Selenium (ppm)	0541	96.55	18.90	309.4	114.7	7.257	14	-1.86	301.30	0
301	Acid Soluble Selenium (ppm)	0519	102.4	1.040	309.4	114.7	7.257	14	-1.80	301.99	0
301	Acid Soluble Selenium (ppm)	0501	149.2	12.90	309.4	114.7	7.257	14	-1.40	301.30	0
301	Acid Soluble Selenium (ppm)	0506	238.0	10.00	309.4	114.7	7.257	14	-0.62	301.99	0
301	Acid Soluble Selenium (ppm)	0476	309.0	0.4100	309.4	114.7	7.257	14	0.00	301.99	0
301	Acid Soluble Selenium (ppm)	0515	321.6	11.24	309.4	114.7	7.257	14	0.11	301.34	0
301	Acid Soluble Selenium (ppm)	0255	353.2	4.250	309.4	114.7	7.257	14	0.38	301.99	0
301	Acid Soluble Selenium (ppm)	0515	362.9	19.11	309.4	114.7	7.257	14	0.47	301.33	0
301	Acid Soluble Selenium (ppm)	0368	373.0	20.00	309.4	114.7	7.257	14	0.55	301.34	0
301	Acid Soluble Selenium (ppm)	0117	375.1	1.700	309.4	114.7	7.257	14	0.57	301.33	0
301	Acid Soluble Selenium (ppm)	0086	376.5	0.4500	309.4	114.7	7.257	14	0.58	301.30	0
301	Acid Soluble Selenium (ppm)	0300	381.3	1.000	309.4	114.7	7.257	14	0.63	301.32	0
301	Acid Soluble Selenium (ppm)	0527	396.1	0.2130	309.4	114.7	7.257	14	0.76	301.33	0
301	Acid Soluble Selenium (ppm)	0037	421.5	0.3790	309.4	114.7	7.257	14	0.98	301.33	0
311	Sodium (%)	0035	0.6510	0.0000	0.7262	0.0575	0.0213	9	-1.21	311.33	0
311	Sodium (%)	0324	0.6890	0.0600	0.7262	0.0575	0.0213	9	-0.60	311.32	0
311	Sodium (%)	0521	0.6895	0.0000	0.7262	0.0575	0.0213	9	-0.59	311.32	0
311	Sodium (%)	0482	0.7050	0.0300	0.7262	0.0575	0.0213	9	-0.34	311.99	0
311	Sodium (%)	0086	0.7185	0.0318	0.7262	0.0575	0.0213	9	-0.12	311.33	0
311	Sodium (%)	0423	0.7375	0.0050	0.7262	0.0575	0.0213	9	0.18	311.33	0
311	Sodium (%)	0096	0.7450	0.0300	0.7262	0.0575	0.0213	9	0.30	311.99	0
311	Sodium (%)	0354	0.7875	0.0310	0.7262	0.0575	0.0213	9	0.98	311.99	0
311	Sodium (%)	0527	0.8330	0.0040	0.7262	0.0575	0.0213	9	1.72	311.33	0
321	Acid Soluble Zinc (1.3%)	0476	0.8615*	0.0010	1.172	0.0674	0.0431	57	-4.60	321.99	0
321	Acid Soluble Zinc (1.3%)	0106	0.9053*	0.2525	1.172	0.0674	0.0431	57	-3.95	321.33	0
321	Acid Soluble Zinc (1.3%)	0541	0.9850*	0.0300	1.172	0.0674	0.0431	57	-2.77	321.32	0

Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321	Acid Soluble Zinc (1.3%)	0102	1.075	0.0137	1.172	0.0674	0.0431	57	-1.43	321.30	0
321	Acid Soluble Zinc (1.3%)	0117	1.099	0.0250	1.172	0.0674	0.0431	57	-1.08	321.33	0
321	Acid Soluble Zinc (1.3%)	0029	1.101	0.0570	1.172	0.0674	0.0431	57	-1.05	321.00	0
321	Acid Soluble Zinc (1.3%)	0368	1.102	0.0283	1.172	0.0674	0.0431	57	-1.03	321.99	0
321	Acid Soluble Zinc (1.3%)	0300	1.104	0.0080	1.172	0.0674	0.0431	57	-1.00	321.32	0
321	Acid Soluble Zinc (1.3%)	0523	1.104	0.1220	1.172	0.0674	0.0431	57	-1.00	321.99	0
321	Acid Soluble Zinc (1.3%)	0444	1.105	0.0300	1.172	0.0674	0.0431	57	-0.99	321.30	0
321	Acid Soluble Zinc (1.3%)	0506	1.110	0.0200	1.172	0.0674	0.0431	57	-0.91	321.99	0
321	Acid Soluble Zinc (1.3%)	0428	1.112	0.0519	1.172	0.0674	0.0431	57	-0.89	321.00	0
321	Acid Soluble Zinc (1.3%)	0324	1.115	0.0100	1.172	0.0674	0.0431	57	-0.84	321.30	0
321	Acid Soluble Zinc (1.3%)	0096	1.124	0.0020	1.172	0.0674	0.0431	57	-0.70	321.30	0
321	Acid Soluble Zinc (1.3%)	0072	1.125	0.1100	1.172	0.0674	0.0431	57	-0.69	321.33	0
321	Acid Soluble Zinc (1.3%)	0472	1.130	0.0200	1.172	0.0674	0.0431	57	-0.62	321.30	0
321	Acid Soluble Zinc (1.3%)	0482	1.130	0.0400	1.172	0.0674	0.0431	57	-0.62	321.30	0
321	Acid Soluble Zinc (1.3%)	0086	1.130	0.0472	1.172	0.0674	0.0431	57	-0.61	321.33	0
321	Acid Soluble Zinc (1.3%)	0513	1.135	0.0100	1.172	0.0674	0.0431	57	-0.54	321.00	0
321	Acid Soluble Zinc (1.3%)	0234	1.135	0.0500	1.172	0.0674	0.0431	57	-0.54	321.30	0
321	Acid Soluble Zinc (1.3%)	0157	1.150	0.0200	1.172	0.0674	0.0431	57	-0.32	321.30	0
321	Acid Soluble Zinc (1.3%)	0394	1.150	0.0000	1.172	0.0674	0.0431	57	-0.32	321.32	0
321	Acid Soluble Zinc (1.3%)	0531	1.153	0.0330	1.172	0.0674	0.0431	57	-0.28	321.00	0
321	Acid Soluble Zinc (1.3%)	0397	1.159	0.0604	1.172	0.0674	0.0431	57	-0.19	321.33	0
321	Acid Soluble Zinc (1.3%)	0255	1.160	0.2800	1.172	0.0674	0.0431	57	-0.17	321.30	0
321	Acid Soluble Zinc (1.3%)	0291	1.165	0.0100	1.172	0.0674	0.0431	57	-0.10	321.30	0
321	Acid Soluble Zinc (1.3%)	0389	1.165	0.0300	1.172	0.0674	0.0431	57	-0.10	321.99	0
321	Acid Soluble Zinc (1.3%)	0034	1.168	0.0180	1.172	0.0674	0.0431	57	-0.05	321.33	0
321	Acid Soluble Zinc (1.3%)	0037	1.169	0.0550	1.172	0.0674	0.0431	57	-0.04	321.33	0
321	Acid Soluble Zinc (1.3%)	0035	1.170	0.0000	1.172	0.0674	0.0431	57	-0.02	321.30	0
321	Acid Soluble Zinc (1.3%)	0040	1.175	0.0700	1.172	0.0674	0.0431	57	0.05	321.00	0
321	Acid Soluble Zinc (1.3%)	0169	1.175	0.0100	1.172	0.0674	0.0431	57	0.05	321.00	0
321	Acid Soluble Zinc (1.3%)	0535	1.175	0.0100	1.172	0.0674	0.0431	57	0.05	321.00	0
321	Acid Soluble Zinc (1.3%)	0433	1.183	0.0030	1.172	0.0674	0.0431	57	0.16	321.30	0
321	Acid Soluble Zinc (1.3%)	0536	1.190	0.0200	1.172	0.0674	0.0431	57	0.27	321.00	0
321	Acid Soluble Zinc (1.3%)	0539	1.190	0.0200	1.172	0.0674	0.0431	57	0.27	321.00	0
321	Acid Soluble Zinc (1.3%)	0540	1.190	0.0200	1.172	0.0674	0.0431	57	0.27	321.00	0
321	Acid Soluble Zinc (1.3%)	0533	1.195	0.0100	1.172	0.0674	0.0431	57	0.35	321.00	0
321	Acid Soluble Zinc (1.3%)	0177	1.198	0.0182	1.172	0.0674	0.0431	57	0.40	321.33	0
321	Acid Soluble Zinc (1.3%)	0027	1.199	0.1230	1.172	0.0674	0.0431	57	0.40	321.99	0
321	Acid Soluble Zinc (1.3%)	0354	1.201	0.0210	1.172	0.0674	0.0431	57	0.43	321.30	0
321	Acid Soluble Zinc (1.3%)	0521	1.203	0.0000	1.172	0.0674	0.0431	57	0.46	321.32	0
321	Acid Soluble Zinc (1.3%)	0360	1.205	0.0700	1.172	0.0674	0.0431	57	0.50	321.30	0
321	Acid Soluble Zinc (1.3%)	0055	1.210	0.0200	1.172	0.0674	0.0431	57	0.57	321.33	0
321	Acid Soluble Zinc (1.3%)	0390	1.225	0.0290	1.172	0.0674	0.0431	57	0.79	321.30	0
321	Acid Soluble Zinc (1.3%)	0515	1.230	0.0318	1.172	0.0674	0.0431	57	0.87	321.99	0



Analyte Group	Analyte (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Your Method	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321	Acid Soluble Zinc (1.3%)	0371	1.240	0.0000	1.172	0.0674	0.0431	57	1.02	321.30	0
321	Acid Soluble Zinc (1.3%)	0527	1.245	0.0370	1.172	0.0674	0.0431	57	1.08	321.33	0
321	Acid Soluble Zinc (1.3%)	0486	1.250	0.0200	1.172	0.0674	0.0431	57	1.16	321.33	0
321	Acid Soluble Zinc (1.3%)	0515	1.259	0.2066	1.172	0.0674	0.0431	57	1.30	321.33	0
321	Acid Soluble Zinc (1.3%)	0231	1.265	0.0100	1.172	0.0674	0.0431	57	1.39	321.30	0
321	Acid Soluble Zinc (1.3%)	0136	1.265	0.1500	1.172	0.0674	0.0431	57	1.39	321.33	0
321	Acid Soluble Zinc (1.3%)	0519	1.265	0.0100	1.172	0.0674	0.0431	57	1.39	321.99	0
321	Acid Soluble Zinc (1.3%)	0534	1.305	0.0300	1.172	0.0674	0.0431	57	1.98	321.00	0
321	Acid Soluble Zinc (1.3%)	0423	1.320	0.0200	1.172	0.0674	0.0431	57	2.20	321.32	0
321	Acid Soluble Zinc (1.3%)	0356	1.340	0.0120	1.172	0.0674	0.0431	57	2.50	321.00	0
321	Acid Soluble Zinc (1.3%)	0518	1.625	0.0500	1.172	0.0674	0.0431	57	6.72	321.99	0
321	Acid Soluble Zinc (1.3%)	0483	12,850	500.0	1.172	0.0674	0.0431	57	190500.26	321.30	2
325	Water Soluble Zinc (%)	0356	0.2340	0.0320	0.5190	0.1491	0.0260	7	-1.73	325.00	0
325	Water Soluble Zinc (%)	0444	0.4300	0.0200	0.5190	0.1491	0.0260	7	-0.54	325.30	0
325	Water Soluble Zinc (%)	0537	0.5200	0.0200	0.5190	0.1491	0.0260	7	0.01	325.00	0
325	Water Soluble Zinc (%)	0532	0.5350	0.0300	0.5190	0.1491	0.0260	7	0.10	325.00	0
325	Water Soluble Zinc (%)	0539	0.5550	0.0300	0.5190	0.1491	0.0260	7	0.22	325.00	0
325	Water Soluble Zinc (%)	0540	0.5550	0.0300	0.5190	0.1491	0.0260	7	0.22	325.00	0
325	Water Soluble Zinc (%)	0402	1.300	0.0200	0.5190	0.1491	0.0260	7	4.74	325.30	0

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 and a 4 flag indicates rejected due to 0 value submitted. A 9 flag indicates a data problem - scores not calculated. Robust statistics not used if < 6 labs used in calculations, in this case the Z Scores are included for information only (Grey). An offset lab value with an asterix indicates that the value is lower than the Analyte value less the IA. Method or 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.