

magruder fertilizer

check sample program



STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 191111

Turf fertilizer w/Si

Statistical Summary

Methods: 111

Labs Reporting: 70

Issue Date : 12/31/2019

Method Code	Analyte & Method Sample # 191111	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Horwitz %RSD
001.99	Ammoniacal N, Other (%)	1		0.0838									
010.60	Total N, Combustion (%)	5	5	0.1116	0.0381	0.1116	0.4900	0.0381	0.0213	34.12%	0.18	0.0300	5.56%
010.99	Total N, Other (%)	1		0.1311									
020.50	Total P2O5, ICP (%)	6	5	0.1032	0.1334	0.1032		0.1334	0.0745	129.25%		0.0723	5.63%
020.99	Total P2O5, Other (%)	1		0.0281									
030.20	Citrate Insoluble P2O5, Spectrophotometric MolybdovanadoP (%)	1		0.0950									
041.10	Direct Available P2O5, Gravimetric Quinolinium (%)	1		0.1350									
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	1		0.0495									
041.50	Direct Available P2O5, ICP (%)	1		0.1000									
050.31	Soluble K2O, AA (Citrate) (%)	1		0.1800									
050.52	Soluble K2O, ICP (Citrate-EDTA) (%)	2	2	0.4035	0.0156								
050.99	Soluble K2O, Other (%)	8	6	0.5544	0.1099	0.5356	0.4100	0.0777	0.0397	14.51%	0.44	0.0463	4.39%
060.00	Water (Free), Vacuum Oven (%)	1		2.355									
060.99	Water (Free), Other (%)	1		1.687									
101.00	Acid Soluble Ca, AA, inorganic 965.09 (24%)	5	5	24.25	1.276	24.25	1.0000	1.276	0.7135	5.26%	2.97	0.2680	2.48%
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual acid (24%)	1		25.67									
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	22	21	24.76	1.197	24.73	1.0000	1.279	0.3488	5.17%	2.98	0.3036	2.47%
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (24%)	3	3	23.51	0.9083	23.51	1.0000	0.9083	0.6555	3.86%	2.12	0.0633	2.49%
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	14	13	24.10	0.7773	24.12	1.0000	0.8115	0.2813	3.36%	1.89	0.3392	2.48%
101.70	Acid Soluble Ca, Titrimetric (24%)	3	3	22.73	2.115	22.73	1.0000	2.115	1.526	9.30%	4.93	0.0967	2.50%
101.99	Acid Soluble Ca, Other (24%)	12	12	24.52	0.9562	24.63	1.0000	0.8226	0.2968	3.34%	1.92	0.6144	2.47%
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	7	7	5.052	0.3614	5.060	0.4530	0.3907	0.1846	7.72%	2.01	0.1857	3.13%
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid (5%)	1		5.188									
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	22	22	5.028	0.2177	5.038	0.4519	0.1880	0.0501	3.73%	0.97	0.1931	3.14%
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (5%)	4	4	5.100	0.1935	5.100	0.4550	0.1935	0.1209	3.79%	0.99	0.0250	3.13%
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	14	14	4.999	0.2872	5.005	0.4502	0.3120	0.1042	6.23%	1.61	0.1413	3.14%
121.70	Acid Soluble Mg, Titrimetric (EDTA) (5%)	1		4.409									
121.99	Acid Soluble Mg, Other (5%)	13	13	4.892	0.6023	4.954	0.4477	0.5173	0.1794	10.44%	2.69	0.1985	3.14%
131.00	Water Soluble Mg, AA (%)	2	2	0.0279	0.0104								
131.30	Water Soluble Mg, ICP (%)	1		4.900									
131.70	Water Soluble Mg, Titrimetric (EDTA) (%)	1		4.993									
131.99	Water Soluble Mg, Other (%)	1		0.0350									
143.99	Elemental S, Other (%)	2	2	4.090	0.5869								

Method Code	Analyte & Method Sample # 191111	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Horwitz %RSD
148.07	Total S, ICP, test portion as in 2017.02 (%)	5	5	4.069	0.6151	4.069	0.4035	0.6151	0.3438	15.12%	3.55	0.0838	3.24%
148.99	Total S, Other (%)	5	5	4.162	0.4066	4.162	0.4081	0.4066	0.2273	9.77%	2.32	0.1680	3.23%
149.04	S - HNO3 soluble, ICP (%)	2	2	3.434	0.4539								
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	1		0.6115									
151.30	Acid Soluble As, ICP (ppm)	6	4	1.245	0.1694	1.245		0.1694	0.1059	13.60%		0.1863	15.48%
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	4	1	4.632		1.245		0.1694	0.2118	13.60%		3.185	15.48%
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	2	2	1.995	0.3682								
151.99	Acid Soluble As, Other (ppm)	3	3	1.070	0.2040	1.070		0.2040	0.1472	19.06%		0.0223	15.83%
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	3	3	0.0124	0.0118	0.0124	0.0049	0.0118	0.0085	95.22%	5.67	0.0005	7.74%
165.99	Acid Soluble B, Other (%)	9	8	0.0108	0.0039	0.0108	0.0046	0.0044	0.0019	40.65%	2.21	0.0018	7.91%
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	1		2.545									
181.30	Acid Soluble Cd, ICP (ppm)	7	4	0.3110	0.3125	0.3110		0.3125	0.1953	100.48%		0.1914	19.07%
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	4	0	0.0000		0.3110		0.3125		100.48%		0.0000	19.07%
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	2	0	0.0000									
181.99	Acid Soluble Cd, Other (ppm)	3	2	0.0789	0.0228	0.0789		0.0228	0.0202	28.97%		0.0084	23.45%
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (ppm)	1		755.1									
191.30	Acid Soluble Cr, ICP (ppm)	8	8	1,351	273.1	1,355		301.6	133.3	22.26%		105.8	5.40%
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	4	4	2,825	970.2	2,825		970.2	606.4	34.35%		365.0	4.84%
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	2	2	1,836	204.6								
191.99	Acid Soluble Cr, Other (ppm)	1		3,500									
202.30	Acid Soluble Co, ICP (ppm)	7	6	34.39	11.23	34.39	11.3179	12.74	6.499	37.03%	2.62	4.238	9.39%
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	1		45.51									
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	4	4	53.25	5.789	53.25	16.9764	5.789	3.618	10.87%	0.79	3.177	8.79%
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	2	2	55.49	3.257								
202.99	Acid Soluble Co, Other (ppm)	4	4	50.66	7.955	50.66	16.1994	7.955	4.972	15.70%	1.14	2.966	8.86%
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	9	8	0.0186	0.0245	0.0184	0.0068	0.0274	0.0121	149.04%	9.34	0.0006	7.30%
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	8	8	0.0267	0.0542	0.0096	0.0060	0.0092	0.0041	95.36%	3.59	0.0085	8.04%
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	5	4	0.0108	0.0128	0.0108	0.0061	0.0128	0.0080	119.31%	4.92	0.0001	7.91%
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	9	8	0.0152	0.0195	0.0152	0.0065	0.0221	0.0098	146.04%	7.91	0.0014	7.51%
221.99	Acid Soluble Cu, Other (%)	10	9	0.0089	0.0152	0.0040	0.0054	0.0009	0.0004	21.70%	0.37	0.0005	9.19%
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	11	11	3.854	0.4460	3.934	0.3984	0.2687	0.1013	6.83%	1.57	0.0888	3.25%
241.02	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C (%)	1		3.050									
241.03	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C w/dual acid (%)	1		3.655									
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	21	21	3.667	0.2874	3.678	0.3728	0.2996	0.0817	8.15%	1.87	0.1622	3.29%
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	3	3	3.923	0.0701	3.923	0.3973	0.0701	0.0506	1.79%	0.41	0.0633	3.26%
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	12	12	3.698	0.3268	3.703	0.3753	0.2695	0.0972	7.28%	1.67	0.1613	3.28%
241.99	Acid Soluble Fe, Other (%)	9	9	3.368	0.5069	3.425	0.3475	0.4314	0.1798	12.60%	2.89	0.0587	3.32%
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	1		20.71									
251.30	Acid Soluble Pb, ICP (ppm)	6	4	1.853	0.2530	1.853		0.2530	0.1581	13.65%		0.2346	14.58%
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	4	3	4.130	1.862	4.130		1.862	1.344	45.08%		0.6069	12.92%
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	2	1	3.340									
251.99	Acid Soluble Pb, Other (ppm)	3	3	1.677	0.2658	1.677		0.2658	0.1918	15.85%		0.1400	14.80%
261.00	Acid Soluble Mn, AA, Mn2+ only (%)	1		0.7175									
261.11	Acid Soluble Mn, AA, total Mn (%)	1		0.5430									

Method Code	Analyte & Method Sample # 191111	# Tests Submitted	# Tests in Robust Calculations	Raw Mean	Raw SD	Assigned Value Robust Mean	IA at Method Value	Robust sd	Robust Uncertainty (U)	Robust % RSD	Method IA Ratio	Average Range (R-bar)	Horwitz %RSD
261.12	Acid Soluble Mn, AA, inorganic 965.09 (%)	7	7	0.6001	0.0420	0.6093	0.0659	0.0233	0.0110	3.83%	0.82	0.0196	4.31%
261.14	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C (%)	1		0.6600									
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	9	8	0.5837	0.0320	0.5846	0.0635	0.0343	0.0151	5.86%	1.26	0.0070	4.34%
261.31	Acid Soluble Mn, ICP, test portion 972.02b (%)	3	3	0.6068	0.0159	0.6068	0.0657	0.0159	0.0115	2.62%	0.56	0.0057	4.31%
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	7	7	0.6149	0.0443	0.6052	0.0655	0.0246	0.0116	4.07%	0.88	0.0324	4.31%
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	4	4	0.6494	0.0309	0.6494	0.0699	0.0309	0.0193	4.75%	1.03	0.0115	4.27%
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	12	12	0.6014	0.0227	0.5989	0.0649	0.0189	0.0068	3.15%	0.68	0.0324	4.32%
261.99	Acid Soluble Mn, Other (%)	9	9	0.5929	0.1051	0.5883	0.0638	0.0627	0.0261	10.66%	2.29	0.0201	4.33%
281.00	Acid Soluble Hg, AA (ppm)	1		20.40									
281.30	Acid Soluble Hg, ICP (ppm)	3	1	0.2550		0.5883		0.0627	0.0784	10.66%		0.0100	17.33%
281.99	Acid Soluble Hg, Other (ppm)	5	4	0.0326	0.0079	0.0326		0.0079	0.0049	24.13%		0.0043	26.78%
289.00	Acid Soluble Mo, AA, test portion 2006.03 modified w/dual acid (30ppm)	1		34.27									
289.30	Acid Soluble Mo, ICP (30ppm)	16	16	62.73	50.58	54.78	17.4344	21.75	6.796	39.70%	2.91	5.162	8.76%
289.33	Acid Soluble Mo, ICP, 2017.02 (30ppm)	7	7	50.91	23.66	56.18	17.8541	12.84	6.068	22.86%	1.68	3.912	8.72%
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (30ppm)	3	3	42.26	13.15	42.26	13.6779	13.15	9.494	31.13%	2.24	0.4633	9.11%
289.99	Acid Soluble Mo, Other (30ppm)	3	3	62.07	3.544	62.07	19.6200	3.544	2.558	5.71%	0.42	5.867	8.59%
291.00	Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid (ppm)	1		111.3									
291.30	Acid Soluble Ni, ICP (ppm)	8	7	234.7	58.93	234.7		66.83	31.57	28.47%		12.92	7.04%
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	5	5	339.1	7.883	339.1		7.883	4.407	2.32%		39.85	6.66%
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	2	2	280.5	5.617								
291.99	Acid Soluble Ni, Other (ppm)	3	3	300.0	64.75	300.0		64.75	46.73	21.58%		39.17	6.78%
301.30	Acid Soluble Se, ICP (ppm)	4	3	317.9	543.1	317.9		543.1	391.9	170.81%		36.75	6.72%
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	3	2	6.398	2.108	6.398		2.108	1.864	32.95%		1.137	12.10%
301.99	Acid Soluble Se, Other (ppm)	4	4	7.273	2.433	7.273		2.433	1.521	33.45%		0.2788	11.87%
311.32	Sodium, ICP, 2006.03 test portion (%)	1		1.056									
311.33	Sodium, ICP, test portion as in 2017.02 (%)	5	5	1.125	0.0751	1.125	0.1175	0.0751	0.0420	6.68%	1.49	0.0379	3.93%
311.99	Sodium, Other (%)	3	3	1.110	0.0218	1.110	0.1160	0.0218	0.0157	1.96%	0.44	0.0267	3.94%
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	7	6	0.0115	0.0172	0.0054	0.0055	0.0031	0.0016	57.86%	1.32	0.0005	8.77%
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	9	8	0.0062	0.0060	0.0059	0.0056	0.0060	0.0027	102.13%	2.51	0.0035	8.66%
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	3	3	0.0022	0.0002	0.0022	0.0052	0.0002	0.0002	10.82%	0.11	0.0004	10.06%
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	7	6	0.0024	0.0006	0.0024	0.0052	0.0007	0.0003	28.82%	0.30	0.0004	9.94%
321.99	Acid Soluble Zn, Other (%)	8	6	0.0026	0.0010	0.0024	0.0052	0.0008	0.0004	34.56%	0.37	0.0005	9.90%
325.30	Water Soluble Zn, ICP (%)	1		0.0100									
431.99	Soluble Si in nonliquids, Other (1.9%)	1		7.350									

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

magruder fertilizer

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STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 191111

Method Precision Report

Turf fertilizer w/Si

Issue Date : 12/31/2019

Method Code	Analyte & Method	# Tests Submitted	# Tests Used in Precision Calcs	Mean	SD	Between Labs sL	Within Labs sr	Reproducibility sR	Between Labs %RSD	Within Labs %rsd	Reproducibility %RSD	sR/sr
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	22	20	24.85	1.168	1.154	0.2545	1.182	4.65%	1.02%	4.76%	4.645
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	14	13	24.10	0.7773	0.7377	0.3465	0.8150	3.06%	1.44%	3.38%	2.352
101.99	Acid Soluble Ca, Other (24%)	12	11	24.41	0.9304	0.8626	0.4932	0.9937	3.53%	2.02%	4.07%	2.015
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	22	20	5.036	0.2267	0.2063	0.1327	0.2453	4.10%	2.63%	4.87%	1.849
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	14	13	5.016	0.2914	0.2824	0.1014	0.3001	5.63%	2.02%	5.98%	2.959
121.99	Acid Soluble Mg, Other (5%)	13	12	5.019	0.4096	0.3960	0.1477	0.4227	7.89%	2.94%	8.42%	2.861
191.30	Acid Soluble Cr, ICP (ppm)	8	8	1,351	273.1	264.6	96.09	281.5	19.58%	7.11%	20.83%	2.929
221.99	Acid Soluble Cu, Other (%)	10	8	0.0038	0.0006	0.0006	0.0004	0.0007	14.64%	10.54%	18.04%	1.712
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	11	9	3.953	0.2061	0.2023	0.0563	0.2099	5.12%	1.42%	5.31%	3.730
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	21	21	3.667	0.2874	0.2691	0.1424	0.3045	7.34%	3.88%	8.30%	2.139
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	12	12	3.698	0.3268	0.3124	0.1358	0.3407	8.45%	3.67%	9.21%	2.508
241.99	Acid Soluble Fe, Other (%)	9	8	3.506	0.3132	0.3100	0.0632	0.3164	8.84%	1.80%	9.03%	5.004
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	12	10	0.5954	0.0152		0.0238			4.00%		
261.99	Acid Soluble Mn, Other (%)	9	8	0.5868	0.1106	0.1102	0.0127	0.1110	18.79%	2.16%	18.91%	8.758
289.30	Acid Soluble Mo, ICP (30ppm)	16	15	51.14	21.00	20.74	4.663	21.25	40.55%	9.12%	41.56%	4.558

Notes: Precision data calculated when 8 or more Tests included.

magruder fertilizer

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STRIVING FOR EXCELLENCE IN ANALYSIS

Method Proficiency For All Labs (Lab Values)

Sample # 191111

Turf fertilizer w/Si

Lab Values

Methods: 111

Labs Reporting: 70

Issue Date : 12/31/2019

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
001.99	Ammoniacal N, Other (%)	0524	0.0838	0.0109				1			0
010.60	Total N, Combustion (%)	0472	0.0500	0.0000	0.1116	0.0381	0.0300	5	-1.62		0
010.60	Total N, Combustion (%)	0516	0.1150	0.0500	0.1116	0.0381	0.0300	5	0.09		0
010.60	Total N, Combustion (%)	0354	0.1180	0.0300	0.1116	0.0381	0.0300	5	0.17		0
010.60	Total N, Combustion (%)	0325	0.1200	0.0000	0.1116	0.0381	0.0300	5	0.22		0
010.60	Total N, Combustion (%)	0482	0.1550	0.0700	0.1116	0.0381	0.0300	5	1.14		0
010.99	Total N, Other (%)	0524	0.1311	0.0073				1			0
020.50	Total P2O5, ICP (%)	0524	0.0227	0.0008	0.1032	0.1334	0.0723	5	-0.53		0
020.50	Total P2O5, ICP (%)	0527	0.0372	0.0007	0.1032	0.1334	0.0723	5	-0.43		0
020.50	Total P2O5, ICP (%)	0389	0.0500	0.0000	0.1032	0.1334	0.0723	5	-0.35		0
020.50	Total P2O5, ICP (%)	0546	0.0660	0.0200	0.1032	0.1334	0.0723	5	-0.24		0
020.50	Total P2O5, ICP (%)	0516	0.3400	0.3400	0.1032	0.1334	0.0723	5	1.55		0
020.50	Total P2O5, ICP (%)	0552	0.0000	0.0000	0.1032	0.1334	0.0723	5			4
020.99	Total P2O5, Other (%)	0515	0.0281	0.0022				1			0
030.20	Citrate Insoluble P2O5, Spectrophotometric MolybdovanadoP (%)	0450	0.0950	0.1300				1			0
041.10	Direct Available P2O5, Gravimetric Quinolinium (%)	0009	0.1350	0.0500				1			0
041.21	Direct Available P2O5, Spectrophotometric, Citrate-EDTA Ext. (%)	0354	0.0495	0.0090				1			0
041.50	Direct Available P2O5, ICP (%)	0325	< 0.1					0			5
050.31	Soluble K2O, AA (Citrate) (%)	0472	0.1800	0.0000				1			0
050.52	Soluble K2O, ICP (Citrate-EDTA) (%)	0423	0.3925	0.0030				2			0
050.52	Soluble K2O, ICP (Citrate-EDTA) (%)	0354	0.4145	0.0370				2			0
050.99	Soluble K2O, Other (%)	0524	0.4787	0.1354	0.5356	0.0777	0.0463	6	-0.65	OK	0
050.99	Soluble K2O, Other (%)	0546	0.4825	0.0130	0.5356	0.0777	0.0463	6	-0.61	OK	0
050.99	Soluble K2O, Other (%)	0482	0.4850	0.0100	0.5356	0.0777	0.0463	6	-0.58	OK	0
050.99	Soluble K2O, Other (%)	0527	0.5453	0.0091	0.5356	0.0777	0.0463	6	0.11	OK	0
050.99	Soluble K2O, Other (%)	0389	0.5700	0.0000	0.5356	0.0777	0.0463	6	0.39	OK	0
050.99	Soluble K2O, Other (%)	0516	0.7650	0.1100	0.5356	0.0777	0.0463	6	2.63	OK	0
050.99	Soluble K2O, Other (%)	0552	0.0000	0.0000	0.5356	0.0777	0.0463	6			4
050.99	Soluble K2O, Other (%)	0325	< 0.1		0.5356	0.0777	0.0463	6			5
060.00	Water (Free), Vacuum Oven (%)	0513	2.355	0.0500				1			0
060.99	Water (Free), Other (%)	0510	1.687	0.0380				1			0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (24%)	0513	22.41	0.0300	24.25	1.276	0.2680	5	-1.45		0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (24%)	0538	23.75	0.5000	24.25	1.276	0.2680	5	-0.39		0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (24%)	0550	24.54	0.2100	24.25	1.276	0.2680	5	0.22		0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (24%)	0534	24.72	0.3000	24.25	1.276	0.2680	5	0.37		0
101.00	Acid Soluble Ca, AA, inorganic 965.09 (24%)	0553	25.85	0.3000	24.25	1.276	0.2680	5	1.25		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
101.03	Acid Soluble Ca, AA, 965.09, test portion 2006.03A-C w/dual acid (24%)	0546	25.67	0.5184				1			0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0493	22.95	0.3000	24.73	1.279	0.3036	21	-1.39	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0472	23.15	1.100	24.73	1.279	0.3036	21	-1.23	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0234	23.55	0.9000	24.73	1.279	0.3036	21	-0.92	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0451	23.59	0.5700	24.73	1.279	0.3036	21	-0.89	Low	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0444	23.75	0.4600	24.73	1.279	0.3036	21	-0.77	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0023	23.95	0.1000	24.73	1.279	0.3036	21	-0.61	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0231	24.01	0.1700	24.73	1.279	0.3036	21	-0.57	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0354	24.10	0.2000	24.73	1.279	0.3036	21	-0.49	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0073	24.60	0.3700	24.73	1.279	0.3036	21	-0.10	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0035	24.60	0.8000	24.73	1.279	0.3036	21	-0.10	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0377	24.66	0.0200	24.73	1.279	0.3036	21	-0.05	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0102	24.69	0.0300	24.73	1.279	0.3036	21	-0.03	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0482	24.75	0.1000	24.73	1.279	0.3036	21	0.02	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0096	24.78	0.0200	24.73	1.279	0.3036	21	0.04	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0360	24.91	0.2100	24.73	1.279	0.3036	21	0.14	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0371	25.30	0.2000	24.73	1.279	0.3036	21	0.45	OK	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0452	26.07	0.1100	24.73	1.279	0.3036	21	1.04	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0433	26.29	0.0100	24.73	1.279	0.3036	21	1.22	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0325	26.35	0.3000	24.73	1.279	0.3036	21	1.27	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0555	26.75	0.3000	24.73	1.279	0.3036	21	1.58	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0255	27.29	0.1050	24.73	1.279	0.3036	21	2.00	High	0
101.30	Acid Soluble Ca, ICP, test portion inorganic 965.09 (24%)	0049	26.35	2.700	24.73	1.279	0.3036	21	1.27	High	1
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (24%)	0095	22.74	0.1300	23.51	0.9083	0.0633	3	-0.85		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (24%)	0521	23.29	0.0000	23.51	0.9083	0.0633	3	-0.25		0
101.32	Acid Soluble Ca, ICP, test portion 2006.03A-C (24%)	0423	24.51	0.0600	23.51	0.9083	0.0633	3	1.10		0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0177	22.57	0.1056	24.12	0.8115	0.3392	13	-1.91	Low	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0292	23.32	0.0700	24.12	0.8115	0.3392	13	-0.99	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0025	23.55	0.1000	24.12	0.8115	0.3392	13	-0.70	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0055	23.74	0.0900	24.12	0.8115	0.3392	13	-0.47	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0117	23.86	1.094	24.12	0.8115	0.3392	13	-0.32	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0040	23.90	0.0900	24.12	0.8115	0.3392	13	-0.28	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0043	23.90	0.3200	24.12	0.8115	0.3392	13	-0.27	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0009	24.00	0.0000	24.12	0.8115	0.3392	13	-0.15	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0106	24.37	0.5346	24.12	0.8115	0.3392	13	0.31	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0037	24.83	0.9750	24.12	0.8115	0.3392	13	0.88	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0527	24.84	0.6311	24.12	0.8115	0.3392	13	0.89	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0034	25.01	0.0200	24.12	0.8115	0.3392	13	1.10	OK	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0486	25.41	0.3800	24.12	0.8115	0.3392	13	1.59	High	0
101.33	Acid Soluble Ca, ICP, 2017.02 (24%)	0543	29.87	9.620	24.12	0.8115	0.3392	13	7.09	High	1
101.70	Acid Soluble Ca, Titrimetric (24%)	0510	20.41	0.0900	22.73	2.115	0.0967	3	-1.10		0
101.70	Acid Soluble Ca, Titrimetric (24%)	0476	23.23	0.1100	22.73	2.115	0.0967	3	0.23		0
101.70	Acid Soluble Ca, Titrimetric (24%)	0544	24.56	0.0900	22.73	2.115	0.0967	3	0.86		0
101.99	Acid Soluble Ca, Other (24%)	0516	22.40	0.6000	24.63	0.8226	0.6144	12	-2.71	Low	0
101.99	Acid Soluble Ca, Other (24%)	0405	23.05	0.3000	24.63	0.8226	0.6144	12	-1.92	Low	0
101.99	Acid Soluble Ca, Other (24%)	0501	24.23	0.2490	24.63	0.8226	0.6144	12	-0.49	OK	0
101.99	Acid Soluble Ca, Other (24%)	0561	24.49	0.2100	24.63	0.8226	0.6144	12	-0.18	OK	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
101.99	Acid Soluble Ca, Other (24%)	0558	24.50	0.2000	24.63	0.8226	0.6144	12	-0.16	OK	0
101.99	Acid Soluble Ca, Other (24%)	0368	24.52	0.0339	24.63	0.8226	0.6144	12	-0.13	OK	0
101.99	Acid Soluble Ca, Other (24%)	0389	24.62	0.2400	24.63	0.8226	0.6144	12	-0.01	OK	0
101.99	Acid Soluble Ca, Other (24%)	0231	24.95	0.1000	24.63	0.8226	0.6144	12	0.39	OK	0
101.99	Acid Soluble Ca, Other (24%)	0520	24.95	0.3000	24.63	0.8226	0.6144	12	0.39	OK	0
101.99	Acid Soluble Ca, Other (24%)	0027	25.43	0.3200	24.63	0.8226	0.6144	12	0.97	OK	0
101.99	Acid Soluble Ca, Other (24%)	0552	25.43	2.120	24.63	0.8226	0.6144	12	0.97	OK	0
101.99	Acid Soluble Ca, Other (24%)	0390	25.65	2.700	24.63	0.8226	0.6144	12	1.24	High	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0485	4.416	0.2150	5.060	0.3907	0.1857	7	-1.49	Low	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0550	4.715	0.0900	5.060	0.3907	0.1857	7	-0.80	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0040	5.055	0.0100	5.060	0.3907	0.1857	7	-0.01	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0553	5.195	0.4100	5.060	0.3907	0.1857	7	0.31	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0534	5.230	0.1600	5.060	0.3907	0.1857	7	0.39	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0513	5.335	0.0100	5.060	0.3907	0.1857	7	0.64	OK	0
121.00	Acid Soluble Mg, AA, inorganic 965.09 (5%)	0029	5.417	0.4050	5.060	0.3907	0.1857	7	0.82	OK	0
121.03	Acid Soluble Mg, AA, 965.09, test portion 2006.03A-C w/dual acid (5%)	0546	5.188	0.1017				1			0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0433	4.524	0.0100	5.038	0.1880	0.1931	22	-2.73	Low	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0102	4.595	0.1900	5.038	0.1880	0.1931	22	-2.36	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0023	4.800	0.4000	5.038	0.1880	0.1931	22	-1.27	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0451	4.890	0.0400	5.038	0.1880	0.1931	22	-0.79	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0444	4.895	0.1700	5.038	0.1880	0.1931	22	-0.76	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0035	4.900	0.8400	5.038	0.1880	0.1931	22	-0.73	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0073	4.930	0.0600	5.038	0.1880	0.1931	22	-0.57	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0482	4.960	0.0000	5.038	0.1880	0.1931	22	-0.41	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0231	4.970	0.0200	5.038	0.1880	0.1931	22	-0.36	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0390	4.990	0.7600	5.038	0.1880	0.1931	22	-0.25	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0493	5.075	0.0500	5.038	0.1880	0.1931	22	0.20	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0255	5.083	0.2390	5.038	0.1880	0.1931	22	0.24	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0377	5.085	0.0700	5.038	0.1880	0.1931	22	0.25	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0096	5.100	0.0400	5.038	0.1880	0.1931	22	0.33	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0354	5.140	0.0000	5.038	0.1880	0.1931	22	0.54	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0234	5.150	0.1000	5.038	0.1880	0.1931	22	0.60	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0325	5.150	0.3000	5.038	0.1880	0.1931	22	0.60	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0049	5.160	0.4800	5.038	0.1880	0.1931	22	0.65	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0360	5.165	0.0300	5.038	0.1880	0.1931	22	0.68	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0371	5.240	0.0800	5.038	0.1880	0.1931	22	1.07	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0452	5.360	0.1600	5.038	0.1880	0.1931	22	1.71	OK	0
121.30	Acid Soluble Mg, ICP, test portion inorganic 965.09 (5%)	0472	5.455	0.2100	5.038	0.1880	0.1931	22	2.22	OK	0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (5%)	0292	4.815	0.0100	5.100	0.1935	0.0250	4	-1.47		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (5%)	0423	5.145	0.0300	5.100	0.1935	0.0250	4	0.23		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (5%)	0095	5.210	0.0600	5.100	0.1935	0.0250	4	0.57		0
121.32	Acid Soluble Mg, ICP, test portion 2006.03A-C (5%)	0521	5.230	0.0000	5.100	0.1935	0.0250	4	0.67		0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0043	4.450	0.1400	5.005	0.3120	0.1413	14	-1.78	Low	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0037	4.744	0.0380	5.005	0.3120	0.1413	14	-0.84	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0543	4.765	0.2100	5.005	0.3120	0.1413	14	-0.77	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0515	4.776	0.5005	5.005	0.3120	0.1413	14	-0.73	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0055	4.880	0.1200	5.005	0.3120	0.1413	14	-0.40	OK	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0106	4.883	0.2365	5.005	0.3120	0.1413	14	-0.39	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0009	4.900	0.0000	5.005	0.3120	0.1413	14	-0.34	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0025	5.025	0.0700	5.005	0.3120	0.1413	14	0.06	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0117	5.071	0.2939	5.005	0.3120	0.1413	14	0.21	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0177	5.074	0.0118	5.005	0.3120	0.1413	14	0.22	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0034	5.169	0.0500	5.005	0.3120	0.1413	14	0.53	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0527	5.376	0.1480	5.005	0.3120	0.1413	14	1.19	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0486	5.410	0.0400	5.005	0.3120	0.1413	14	1.30	OK	0
121.33	Acid Soluble Mg, ICP, 2017.02 (5%)	0561	5.460	0.1200	5.005	0.3120	0.1413	14	1.46	High	0
121.70	Acid Soluble Mg, Titrimetric (EDTA) (5%)	0476	4.409	0.0728				1			0
121.99	Acid Soluble Mg, Other (5%)	0524	3.371	0.5731	4.954	0.5173	0.1985	13	-3.06	Low	0
121.99	Acid Soluble Mg, Other (5%)	0515	4.297	0.3236	4.954	0.5173	0.1985	13	-1.27	Low	0
121.99	Acid Soluble Mg, Other (5%)	0389	4.395	0.0300	4.954	0.5173	0.1985	13	-1.08	Low	0
121.99	Acid Soluble Mg, Other (5%)	0405	4.730	0.1600	4.954	0.5173	0.1985	13	-0.43	OK	0
121.99	Acid Soluble Mg, Other (5%)	0516	4.800	0.0000	4.954	0.5173	0.1985	13	-0.30	OK	0
121.99	Acid Soluble Mg, Other (5%)	0501	5.020	0.0000	4.954	0.5173	0.1985	13	0.13	OK	0
121.99	Acid Soluble Mg, Other (5%)	0368	5.056	0.1417	4.954	0.5173	0.1985	13	0.20	OK	0
121.99	Acid Soluble Mg, Other (5%)	0552	5.125	0.3700	4.954	0.5173	0.1985	13	0.33	OK	0
121.99	Acid Soluble Mg, Other (5%)	0027	5.144	0.3620	4.954	0.5173	0.1985	13	0.37	OK	0
121.99	Acid Soluble Mg, Other (5%)	0558	5.160	0.1200	4.954	0.5173	0.1985	13	0.40	OK	0
121.99	Acid Soluble Mg, Other (5%)	0231	5.400	0.2000	4.954	0.5173	0.1985	13	0.86	OK	0
121.99	Acid Soluble Mg, Other (5%)	0450	5.400	0.1000	4.954	0.5173	0.1985	13	0.86	OK	0
121.99	Acid Soluble Mg, Other (5%)	0520	5.700	0.2000	4.954	0.5173	0.1985	13	1.44	High	0
131.00	Water Soluble Mg, AA (%)	0538	0.0205	0.0010				2			0
131.00	Water Soluble Mg, AA (%)	0550	0.0352	0.0096				2			0
131.30	Water Soluble Mg, ICP (%)	0555	4.900	0.4000				1			0
131.70	Water Soluble Mg, Titrimetric (EDTA) (%)	0510	4.993	0.0517				1			0
131.99	Water Soluble Mg, Other (%)	0405	0.0350	0.0000				1			0
143.99	Elemental S, Other (%)	0472	3.675	0.1300				2			0
143.99	Elemental S, Other (%)	0389	4.505	0.0900				2			0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0542	3.027	0.0340	4.069	0.6151	0.0838	5	-1.69		0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0521	4.094	0.0000	4.069	0.6151	0.0838	5	0.04		0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0546	4.247	0.1081	4.069	0.6151	0.0838	5	0.29		0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0515	4.341	0.0261	4.069	0.6151	0.0838	5	0.44		0
148.07	Total S, ICP, test portion as in 2017.02 (%)	0527	4.636	0.2506	4.069	0.6151	0.0838	5	0.92		0
148.99	Total S, Other (%)	0450	3.840	0.2000	4.162	0.4066	0.1680	5	-0.79		0
148.99	Total S, Other (%)	0516	3.900	0.4000	4.162	0.4066	0.1680	5	-0.64		0
148.99	Total S, Other (%)	0354	4.070	0.0600	4.162	0.4066	0.1680	5	-0.23		0
148.99	Total S, Other (%)	0096	4.145	0.0300	4.162	0.4066	0.1680	5	-0.04		0
148.99	Total S, Other (%)	0482	4.855	0.1500	4.162	0.4066	0.1680	5	1.70		0
149.04	S - HNO3 soluble, ICP (%)	0524	3.113	0.2452				2			0
149.04	S - HNO3 soluble, ICP (%)	0423	3.755	0.0900				2			0
151.00	Acid Soluble As, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	0.6115	0.0150				1			0
151.30	Acid Soluble As, ICP (ppm)	0524	1.059	0.2770	1.245	0.1694	0.1863	4	-0.94		0
151.30	Acid Soluble As, ICP (ppm)	0450	1.150	0.1000	1.245	0.1694	0.1863	4	-0.48		0
151.30	Acid Soluble As, ICP (ppm)	0255	1.353	0.3480	1.245	0.1694	0.1863	4	0.54		0
151.30	Acid Soluble As, ICP (ppm)	0501	1.420	0.0200	1.245	0.1694	0.1863	4	0.87		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
151.30	Acid Soluble As, ICP (ppm)	0555	< 0.5		1.245	0.1694	0.1863	4			5
151.30	Acid Soluble As, ICP (ppm)	0027	< 20		1.245	0.1694	0.1863	4			5
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0515	4.632	3.185				1			0
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0527	< 0.0001					1			5
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0009	< 5					1			5
151.33	Acid Soluble As, ICP, 2017.02 (ppm)	0117	< 10					1			5
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0515	1.734	1.817				2			0
151.34	Acid Soluble As, ICP, EPA 3050B/6010C (ppm)	0368	2.255	1.230				2			0
151.99	Acid Soluble As, Other (ppm)	0390	0.9105	0.0670	1.070	0.2040	0.0223	3	-0.78		0
151.99	Acid Soluble As, Other (ppm)	0405	1.000	0.0000	1.070	0.2040	0.0223	3	-0.34		0
151.99	Acid Soluble As, Other (ppm)	0009	1.300	0.0000	1.070	0.2040	0.0223	3	1.13		0
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0106	0.0020	0.0012	0.0124	0.0118	0.0005	3	-0.88		0
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0354	0.0100	0.0000	0.0124	0.0118	0.0005	3	-0.21		0
165.30	Acid Soluble B, ICP, test portion in 982.01 (%)	0542	0.0253	0.0002	0.0124	0.0118	0.0005	3	1.09		0
165.99	Acid Soluble B, Other (%)	0515	0.0055	0.0002	0.0108	0.0044	0.0018	8	-1.10	Low	0
165.99	Acid Soluble B, Other (%)	0009	0.0068	0.0001	0.0108	0.0044	0.0018	8	-0.84	OK	0
165.99	Acid Soluble B, Other (%)	0524	0.0092	0.0001	0.0108	0.0044	0.0018	8	-0.34	OK	0
165.99	Acid Soluble B, Other (%)	0423	0.0095	0.0010	0.0108	0.0044	0.0018	8	-0.26	OK	0
165.99	Acid Soluble B, Other (%)	0482	0.0100	0.0000	0.0108	0.0044	0.0018	8	-0.16	OK	0
165.99	Acid Soluble B, Other (%)	0472	0.0150	0.0100	0.0108	0.0044	0.0018	8	0.89	OK	0
165.99	Acid Soluble B, Other (%)	0516	0.0150	0.0020	0.0108	0.0044	0.0018	8	0.89	OK	0
165.99	Acid Soluble B, Other (%)	0527	0.0152	0.0010	0.0108	0.0044	0.0018	8	0.93	OK	0
165.99	Acid Soluble B, Other (%)	0552	0.3850	0.0900	0.0108	0.0044	0.0018	8	78.25	High	2
181.00	Acid Soluble Cd, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	2.545	0.0900				1			0
181.30	Acid Soluble Cd, ICP (ppm)	0501	0.0660	0.0020	0.3110	0.3125	0.1914	4	-0.66		0
181.30	Acid Soluble Cd, ICP (ppm)	0450	0.1500	0.1000	0.3110	0.3125	0.1914	4	-0.44		0
181.30	Acid Soluble Cd, ICP (ppm)	0255	0.2645	0.0630	0.3110	0.3125	0.1914	4	-0.13		0
181.30	Acid Soluble Cd, ICP (ppm)	0524	0.7637	0.6005	0.3110	0.3125	0.1914	4	1.23		0
181.30	Acid Soluble Cd, ICP (ppm)	0389	< 0.05		0.3110	0.3125	0.1914	4			5
181.30	Acid Soluble Cd, ICP (ppm)	0555	< 0.5		0.3110	0.3125	0.1914	4			5
181.30	Acid Soluble Cd, ICP (ppm)	0027	< 20		0.3110	0.3125	0.1914	4			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0515	0.0000	0.0000				0			4
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0527	< 0.0001					0			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0009	< 2					0			5
181.33	Acid Soluble Cd, ICP, 2017.02 (ppm)	0117	< 5					0			5
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0515	0.0000	0.0000				0			4
181.34	Acid Soluble Cd, ICP, EPA 3050B/6010C (ppm)	0368	< 0.1					0			5
181.99	Acid Soluble Cd, Other (ppm)	0390	0.0627	0.0068				2			0
181.99	Acid Soluble Cd, Other (ppm)	0405	0.0950	0.0100				2			0
181.99	Acid Soluble Cd, Other (ppm)	0009	< 0.05					2			5
191.00	Acid Soluble Cr, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	755.1	19.87				1			0
191.30	Acid Soluble Cr, ICP (ppm)	0444	873.5	43.00	1,355	301.6	105.8	8	-1.46	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0524	1,125	86.35	1,355	301.6	105.8	8	-0.70	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0555	1,245	101.0	1,355	301.6	105.8	8	-0.34	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0035	1,330	222.0	1,355	301.6	105.8	8	-0.08	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0482	1,434	252.0	1,355	301.6	105.8	8	0.24	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0450	1,522	2.000	1,355	301.6	105.8	8	0.51	NA	0

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			Value	Range	Rob Mean	Rob SD	R-bar				
191.30	Acid Soluble Cr, ICP (ppm)	0027	1,526	123.0	1,355	301.6	105.8	8	0.52	NA	0
191.30	Acid Soluble Cr, ICP (ppm)	0096	1,757	17.00	1,355	301.6	105.8	8	1.22	NA	0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0037	2,057	53.50	2,825	970.2	365.0	4	-0.79		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0527	2,113	3.325	2,825	970.2	365.0	4	-0.73		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0009	3,000	200.0	2,825	970.2	365.0	4	0.18		0
191.33	Acid Soluble Cr, ICP, 2017.02 (ppm)	0515	4,128	1,203	2,825	970.2	365.0	4	1.34		0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0368	1,691	83.60				2			0
191.34	Acid Soluble Cr, ICP, EPA 3050B/6010C (ppm)	0515	1,981	130.4				2			0
191.99	Acid Soluble Cr, Other (ppm)	0009	3,500	1,200				1			0
202.30	Acid Soluble Co, ICP (ppm)	0035	21.50	1.000	34.39	12.74	4.238	6	-0.90	Low	0
202.30	Acid Soluble Co, ICP (ppm)	0389	25.24	3.270	34.39	12.74	4.238	6	-0.64	OK	0
202.30	Acid Soluble Co, ICP (ppm)	0524	30.50	2.771	34.39	12.74	4.238	6	-0.27	OK	0
202.30	Acid Soluble Co, ICP (ppm)	0482	33.35	9.900	34.39	12.74	4.238	6	-0.07	OK	0
202.30	Acid Soluble Co, ICP (ppm)	0096	47.60	1.000	34.39	12.74	4.238	6	0.92	High	0
202.30	Acid Soluble Co, ICP (ppm)	0027	48.17	7.486	34.39	12.74	4.238	6	0.96	High	0
202.30	Acid Soluble Co, ICP (ppm)	0555	< 0.5		34.39	12.74	4.238	6			5
202.32	Acid Soluble Co, ICP, 2006.03 (ppm)	0423	45.51	1.330				1			0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0527	44.59	2.503	53.25	5.789	3.177	4	-1.50		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0546	55.77	1.715	53.25	5.789	3.177	4	0.44		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0009	56.00	0.0000	53.25	5.789	3.177	4	0.47		0
202.33	Acid Soluble Co, ICP, 2017.02 (ppm)	0515	56.65	8.490	53.25	5.789	3.177	4	0.59		0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0515	53.19	2.221				2			0
202.34	Acid Soluble Co, ICP, EPA 3050B/6010C (ppm)	0501	57.80	0.9900				2			0
202.99	Acid Soluble Co, Other (ppm)	0405	43.50	0.6000	50.66	7.955	2.966	4	-0.90		0
202.99	Acid Soluble Co, Other (ppm)	0255	44.96	0.8620	50.66	7.955	2.966	4	-0.72		0
202.99	Acid Soluble Co, Other (ppm)	0390	53.70	3.400	50.66	7.955	2.966	4	0.38		0
202.99	Acid Soluble Co, Other (ppm)	0009	60.50	7.000	50.66	7.955	2.966	4	1.24		0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0553	0.0040	0.0001	0.0184	0.0274	0.0006	8	-0.48	Low	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0029	0.0045	0.0006	0.0184	0.0274	0.0006	8	-0.46	Low	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0533	0.0057	0.0002	0.0184	0.0274	0.0006	8	-0.42	Low	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0535	0.0059	0.0002	0.0184	0.0274	0.0006	8	-0.42	Low	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0536	0.0060	0.0004	0.0184	0.0274	0.0006	8	-0.41	Low	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0550	0.0061	0.0004	0.0184	0.0274	0.0006	8	-0.41	Low	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0485	0.0555	0.0010	0.0184	0.0274	0.0006	8	1.24	High	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0538	0.0610	0.0020	0.0184	0.0274	0.0006	8	1.42	High	0
221.00	Acid Soluble Cu, AA, inorganic 965.09 (%)	0534	0.0505	0.0110	0.0184	0.0274	0.0006	8	1.07	High	1
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0377	0.0030	0.0000	0.0096	0.0092	0.0085	8	-0.66	Low	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0049	0.0035	0.0006	0.0096	0.0092	0.0085	8	-0.61	Low	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0035	0.0036	0.0001	0.0096	0.0092	0.0085	8	-0.61	Low	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0360	0.0046	0.0010	0.0096	0.0092	0.0085	8	-0.50	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0354	0.0065	0.0010	0.0096	0.0092	0.0085	8	-0.31	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0255	0.0125	0.0050	0.0096	0.0092	0.0085	8	0.29	OK	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0234	0.0200	0.0200	0.0096	0.0092	0.0085	8	1.03	High	0
221.30	Acid Soluble Cu, ICP, test portion inorganic 965.09 (%)	0552	0.1600	0.0400	0.0096	0.0092	0.0085	8	14.97	High	0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0521	0.0035	0.0000	0.0108	0.0128	0.0001	4	-0.57		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0095	0.0046	0.0003	0.0108	0.0128	0.0001	4	-0.48		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0423	0.0050	0.0000	0.0108	0.0128	0.0001	4	-0.45		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0043	0.0300	0.0000	0.0108	0.0128	0.0001	4	1.50		0
221.32	Acid Soluble Cu, ICP, test portion 2006.03A-C (%)	0292	0.0000	0.0000	0.0108	0.0128	0.0001	4			4
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0009	0.0042	0.0001	0.0152	0.0221	0.0014	8	-0.45	Low	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0546	0.0044	0.0001	0.0152	0.0221	0.0014	8	-0.45	Low	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0055	0.0045	0.0002	0.0152	0.0221	0.0014	8	-0.44	Low	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0117	0.0048	0.0001	0.0152	0.0221	0.0014	8	-0.43	Low	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0106	0.0048	0.0016	0.0152	0.0221	0.0014	8	-0.43	Low	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0527	0.0052	0.0001	0.0152	0.0221	0.0014	8	-0.41	Low	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0515	0.0460	0.0060	0.0152	0.0221	0.0014	8	1.28	High	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0555	0.0475	0.0030	0.0152	0.0221	0.0014	8	1.34	High	0
221.33	Acid Soluble Cu, ICP, 2017.02 (%)	0543	0.1500	0.1000	0.0152	0.0221	0.0014	8	5.57	High	1
221.99	Acid Soluble Cu, Other (%)	0390	0.0031	0.0002	0.0040	0.0009	0.0005	9	-0.94	OK	0
221.99	Acid Soluble Cu, Other (%)	0524	0.0032	0.0002	0.0040	0.0009	0.0005	9	-0.83	OK	0
221.99	Acid Soluble Cu, Other (%)	0027	0.0035	0.0010	0.0040	0.0009	0.0005	9	-0.51	OK	0
221.99	Acid Soluble Cu, Other (%)	0516	0.0035	0.0010	0.0040	0.0009	0.0005	9	-0.51	OK	0
221.99	Acid Soluble Cu, Other (%)	0389	0.0040	0.0001	0.0040	0.0009	0.0005	9	-0.03	OK	0
221.99	Acid Soluble Cu, Other (%)	0368	0.0041	0.0005	0.0040	0.0009	0.0005	9	0.07	OK	0
221.99	Acid Soluble Cu, Other (%)	0009	0.0043	0.0005	0.0040	0.0009	0.0005	9	0.29	OK	0
221.99	Acid Soluble Cu, Other (%)	0405	0.0050	0.0000	0.0040	0.0009	0.0005	9	1.09	OK	0
221.99	Acid Soluble Cu, Other (%)	0515	0.0495	0.0010	0.0040	0.0009	0.0005	9	48.63	High	0
221.99	Acid Soluble Cu, Other (%)	0558	< 0.01		0.0040	0.0009	0.0005	9			5
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0513	2.645	0.0700	3.934	0.2687	0.0888	11	-4.49	Low	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0553	3.605	0.0100	3.934	0.2687	0.0888	11	-1.15	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0485	3.743	0.0060	3.934	0.2687	0.0888	11	-0.67	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0534	3.800	0.0000	3.934	0.2687	0.0888	11	-0.47	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0550	3.850	0.1200	3.934	0.2687	0.0888	11	-0.29	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0536	4.050	0.1000	3.934	0.2687	0.0888	11	0.40	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0531	4.075	0.0500	3.934	0.2687	0.0888	11	0.49	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0533	4.150	0.1000	3.934	0.2687	0.0888	11	0.75	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0535	4.150	0.1000	3.934	0.2687	0.0888	11	0.75	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0538	4.150	0.1000	3.934	0.2687	0.0888	11	0.75	OK	0
241.00	Acid Soluble Fe, AA, inorganic 965.09 (%)	0029	4.171	0.3210	3.934	0.2687	0.0888	11	0.82	OK	0
241.02	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C (%)	0292	3.050	0.0000				1			0
241.03	Acid Soluble Fe, AA, 965.09, test portion 2006.03A-C w/dual acid (%)	0546	3.655	0.0824				1			0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0555	3.000	0.4000	3.678	0.2996	0.1622	21	-2.26	Low	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0102	3.240	0.1600	3.678	0.2996	0.1622	21	-1.46	Low	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0472	3.255	0.2700	3.678	0.2996	0.1622	21	-1.41	Low	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0234	3.350	0.1000	3.678	0.2996	0.1622	21	-1.10	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0433	3.404	0.0200	3.678	0.2996	0.1622	21	-0.91	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0035	3.465	0.1500	3.678	0.2996	0.1622	21	-0.71	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0073	3.565	0.1100	3.678	0.2996	0.1622	21	-0.38	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0552	3.660	0.0600	3.678	0.2996	0.1622	21	-0.06	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0390	3.680	0.1600	3.678	0.2996	0.1622	21	0.01	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0420	3.702	0.1400	3.678	0.2996	0.1622	21	0.08	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0255	3.725	0.3060	3.678	0.2996	0.1622	21	0.16	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0451	3.735	0.0500	3.678	0.2996	0.1622	21	0.19	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0231	3.790	0.1200	3.678	0.2996	0.1622	21	0.37	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0482	3.810	0.4200	3.678	0.2996	0.1622	21	0.44	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0493	3.850	0.1000	3.678	0.2996	0.1622	21	0.57	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0444	3.880	0.0600	3.678	0.2996	0.1622	21	0.67	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0049	3.935	0.3900	3.678	0.2996	0.1622	21	0.86	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0354	3.945	0.0500	3.678	0.2996	0.1622	21	0.89	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0360	3.955	0.0700	3.678	0.2996	0.1622	21	0.92	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0096	3.960	0.1000	3.678	0.2996	0.1622	21	0.94	OK	0
241.30	Acid Soluble Fe, ICP, test portion inorganic 965.09 (%)	0377	4.105	0.1700	3.678	0.2996	0.1622	21	1.42	High	0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	0521	3.845	0.0000	3.923	0.0701	0.0633	3	-1.12		0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	0423	3.945	0.0500	3.923	0.0701	0.0633	3	0.31		0
241.32	Acid Soluble Fe, ICP, test portion 2006.03A-C (%)	0095	3.980	0.1400	3.923	0.0701	0.0633	3	0.81		0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0543	3.010	0.3400	3.703	0.2695	0.1613	12	-2.57	Low	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0043	3.320	0.1600	3.703	0.2695	0.1613	12	-1.42	Low	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0515	3.610	0.2954	3.703	0.2695	0.1613	12	-0.34	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0034	3.649	0.2420	3.703	0.2695	0.1613	12	-0.20	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0037	3.650	0.0520	3.703	0.2695	0.1613	12	-0.20	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0055	3.695	0.0300	3.703	0.2695	0.1613	12	-0.03	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0025	3.735	0.0300	3.703	0.2695	0.1613	12	0.12	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0106	3.736	0.2583	3.703	0.2695	0.1613	12	0.12	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0117	3.793	0.1774	3.703	0.2695	0.1613	12	0.33	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0009	3.800	0.2000	3.703	0.2695	0.1613	12	0.36	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0177	4.041	0.0458	3.703	0.2695	0.1613	12	1.25	OK	0
241.33	Acid Soluble Fe, ICP, 2017.02 (%)	0527	4.336	0.1048	3.703	0.2695	0.1613	12	2.35	High	0
241.99	Acid Soluble Fe, Other (%)	0501	2.265	0.0100	3.425	0.4314	0.0587	9	-2.48	Low	0
241.99	Acid Soluble Fe, Other (%)	0524	3.009	0.0291	3.425	0.4314	0.0587	9	-0.89	Low	0
241.99	Acid Soluble Fe, Other (%)	0516	3.100	0.0000	3.425	0.4314	0.0587	9	-0.70	OK	0
241.99	Acid Soluble Fe, Other (%)	0515	3.449	0.1518	3.425	0.4314	0.0587	9	0.05	OK	0
241.99	Acid Soluble Fe, Other (%)	0558	3.515	0.0300	3.425	0.4314	0.0587	9	0.19	OK	0
241.99	Acid Soluble Fe, Other (%)	0405	3.580	0.0200	3.425	0.4314	0.0587	9	0.33	OK	0
241.99	Acid Soluble Fe, Other (%)	0027	3.728	0.1260	3.425	0.4314	0.0587	9	0.65	OK	0
241.99	Acid Soluble Fe, Other (%)	0389	3.785	0.0100	3.425	0.4314	0.0587	9	0.77	High	0
241.99	Acid Soluble Fe, Other (%)	0368	3.880	0.1510	3.425	0.4314	0.0587	9	0.97	High	0
251.00	Acid Soluble Pb, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	20.71	0.0500				1			0
251.30	Acid Soluble Pb, ICP (ppm)	0524	1.648	0.3613	1.853	0.2530	0.2346	4	-0.69		0
251.30	Acid Soluble Pb, ICP (ppm)	0255	1.704	0.2570	1.853	0.2530	0.2346	4	-0.50		0
251.30	Acid Soluble Pb, ICP (ppm)	0450	1.850	0.3000	1.853	0.2530	0.2346	4	-0.01		0
251.30	Acid Soluble Pb, ICP (ppm)	0501	2.210	0.0200	1.853	0.2530	0.2346	4	1.20		0
251.30	Acid Soluble Pb, ICP (ppm)	0555	< 0.5		1.853	0.2530	0.2346	4			5
251.30	Acid Soluble Pb, ICP (ppm)	0027	< 20		1.853	0.2530	0.2346	4			5
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0527	2.062	0.0297	4.130	1.862	0.6069	3	-1.11		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0515	4.657	1.423	4.130	1.862	0.6069	3	0.28		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0117	5.672	0.3680	4.130	1.862	0.6069	3	0.83		0
251.33	Acid Soluble Pb, ICP, 2017.02 (ppm)	0009	< 6		4.130	1.862	0.6069	3			5
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0515	3.340	6.096				1			0
251.34	Acid Soluble Pb, ICP, EPA 3050B/6010C (ppm)	0368	< 0.8					1			5
251.99	Acid Soluble Pb, Other (ppm)	0009	1.400	0.4000	1.677	0.2658	0.1400	3	-1.04		0
251.99	Acid Soluble Pb, Other (ppm)	0405	1.700	0.0000	1.677	0.2658	0.1400	3	0.09		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
251.99	Acid Soluble Pb, Other (ppm)	0390	1.930	0.0200	1.677	0.2658	0.1400	3	0.95		0
261.00	Acid Soluble Mn, AA, Mn2+ only (%)	0553	0.7175	0.0050				1			0
261.11	Acid Soluble Mn, AA, total Mn (%)	0550	0.5430	0.0120				1			0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (%)	0513	0.5100	0.0200	0.6093	0.0233	0.0196	7	-3.85	Low	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (%)	0534	0.5900	0.0200	0.6093	0.0233	0.0196	7	-0.75	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (%)	0535	0.6100	0.0200	0.6093	0.0233	0.0196	7	0.03	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (%)	0536	0.6100	0.0200	0.6093	0.0233	0.0196	7	0.03	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (%)	0533	0.6250	0.0300	0.6093	0.0233	0.0196	7	0.61	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (%)	0485	0.6255	0.0074	0.6093	0.0233	0.0196	7	0.63	OK	0
261.12	Acid Soluble Mn, AA, inorganic 965.09 (%)	0538	0.6300	0.0200	0.6093	0.0233	0.0196	7	0.80	OK	0
261.14	Acid Soluble Mn, AA, 965.09, test portion 2006.03A-C (%)	0292	0.6600	0.0000				1			0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0433	0.5260	0.0000	0.5846	0.0343	0.0070	8	-1.57	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0472	0.5560	0.0280	0.5846	0.0343	0.0070	8	-0.76	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0420	0.5727	0.0033	0.5846	0.0343	0.0070	8	-0.32	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0102	0.5775	0.0000	0.5846	0.0343	0.0070	8	-0.19	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0354	0.5950	0.0100	0.5846	0.0343	0.0070	8	0.28	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0390	0.6135	0.0070	0.5846	0.0343	0.0070	8	0.77	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0096	0.6136	0.0024	0.5846	0.0343	0.0070	8	0.77	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0073	0.6155	0.0050	0.5846	0.0343	0.0070	8	0.82	OK	0
261.30	Acid Soluble Mn, ICP, test portion 972.02a (%)	0035	0.5490	0.0620	0.5846	0.0343	0.0070	8	-0.95	OK	1
261.31	Acid Soluble Mn, ICP, test portion 972.02b (%)	0360	0.5955	0.0070	0.6068	0.0159	0.0057	3	-0.71		0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (%)	0234	0.6000	0.0000	0.6068	0.0159	0.0057	3	-0.43		0
261.31	Acid Soluble Mn, ICP, test portion 972.02b (%)	0482	0.6250	0.0100	0.6068	0.0159	0.0057	3	1.14		0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	0231	0.5850	0.0100	0.6052	0.0246	0.0324	7	-0.74	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	0444	0.5900	0.0200	0.6052	0.0246	0.0324	7	-0.56	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	0555	0.5950	0.0300	0.6052	0.0246	0.0324	7	-0.38	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	0049	0.5955	0.0890	0.6052	0.0246	0.0324	7	-0.36	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	0451	0.5995	0.0290	0.6052	0.0246	0.0324	7	-0.21	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	0377	0.6295	0.0090	0.6052	0.0246	0.0324	7	0.89	OK	0
261.32	Acid Soluble Mn, ICP, test portion inorganic 965.09 (%)	0552	0.7100	0.0400	0.6052	0.0246	0.0324	7	3.85	High	0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	0095	0.6250	0.0100	0.6494	0.0309	0.0115	4	-0.79		0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	0542	0.6357	0.0091	0.6494	0.0309	0.0115	4	-0.45		0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	0423	0.6425	0.0270	0.6494	0.0309	0.0115	4	-0.22		0
261.34	Acid Soluble Mn, ICP, test portion 2006.03A-C (%)	0521	0.6944	0.0000	0.6494	0.0309	0.0115	4	1.46		0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0515	0.5744	0.0762	0.5989	0.0189	0.0324	12	-1.30	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0106	0.5779	0.0120	0.5989	0.0189	0.0324	12	-1.11	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0037	0.5845	0.0110	0.5989	0.0189	0.0324	12	-0.76	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0043	0.5850	0.0100	0.5989	0.0189	0.0324	12	-0.73	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0546	0.5930	0.0294	0.5989	0.0189	0.0324	12	-0.31	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0009	0.5950	0.0300	0.5989	0.0189	0.0324	12	-0.20	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0055	0.6050	0.0100	0.5989	0.0189	0.0324	12	0.33	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0543	0.6050	0.1100	0.5989	0.0189	0.0324	12	0.33	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0117	0.6095	0.0359	0.5989	0.0189	0.0324	12	0.56	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0025	0.6095	0.0370	0.5989	0.0189	0.0324	12	0.56	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0177	0.6204	0.0259	0.5989	0.0189	0.0324	12	1.14	OK	0
261.35	Acid Soluble Mn, ICP, 2017.02 (%)	0527	0.6579	0.0019	0.5989	0.0189	0.0324	12	3.12	OK	0
261.99	Acid Soluble Mn, Other (%)	0524	0.4081	0.0285	0.5883	0.0627	0.0201	9	-2.65	Low	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
261.99	Acid Soluble Mn, Other (%)	0405	0.5440	0.0120	0.5883	0.0627	0.0201	9	-0.65	OK	0
261.99	Acid Soluble Mn, Other (%)	0515	0.5503	0.0016	0.5883	0.0627	0.0201	9	-0.56	OK	0
261.99	Acid Soluble Mn, Other (%)	0368	0.5831	0.0177	0.5883	0.0627	0.0201	9	-0.08	OK	0
261.99	Acid Soluble Mn, Other (%)	0389	0.5900	0.0000	0.5883	0.0627	0.0201	9	0.03	OK	0
261.99	Acid Soluble Mn, Other (%)	0516	0.6000	0.0000	0.5883	0.0627	0.0201	9	0.17	OK	0
261.99	Acid Soluble Mn, Other (%)	0255	0.6090	0.0360	0.5883	0.0627	0.0201	9	0.31	OK	0
261.99	Acid Soluble Mn, Other (%)	0027	0.6415	0.0850	0.5883	0.0627	0.0201	9	0.78	OK	0
261.99	Acid Soluble Mn, Other (%)	0558	0.8100	0.0000	0.5883	0.0627	0.0201	9	3.26	High	0
281.00	Acid Soluble Hg, AA (ppm)	0550	20.40	0.4000				1			0
281.30	Acid Soluble Hg, ICP (ppm)	0501	0.2550	0.0100				1			0
281.30	Acid Soluble Hg, ICP (ppm)	0515	0.0000	0.0000				1			4
281.30	Acid Soluble Hg, ICP (ppm)	0527	< 0.0001					1			5
281.99	Acid Soluble Hg, Other (ppm)	0405	0.0250	0.0100	0.0326	0.0079	0.0043	4	-0.97		0
281.99	Acid Soluble Hg, Other (ppm)	0368	0.0298	0.0008	0.0326	0.0079	0.0043	4	-0.36		0
281.99	Acid Soluble Hg, Other (ppm)	0390	0.0321	0.0040	0.0326	0.0079	0.0043	4	-0.07		0
281.99	Acid Soluble Hg, Other (ppm)	0035	0.0436	0.0023	0.0326	0.0079	0.0043	4	1.39		0
281.99	Acid Soluble Hg, Other (ppm)	0009	< 0.044		0.0326	0.0079	0.0043	4			5
289.00	Acid Soluble Mo, AA, test portion 2006.03 modified w/dual acid (30ppm)	0550	34.27	0.1400				1			0
289.30	Acid Soluble Mo, ICP (30ppm)	0543	0.1750	0.1100	54.78	21.75	5.162	16	-2.51	Low	0
289.30	Acid Soluble Mo, ICP (30ppm)	0234	29.50	1.000	54.78	21.75	5.162	16	-1.16	Low	0
289.30	Acid Soluble Mo, ICP (30ppm)	0035	30.05	6.100	54.78	21.75	5.162	16	-1.14	Low	0
289.30	Acid Soluble Mo, ICP (30ppm)	0377	36.36	4.850	54.78	21.75	5.162	16	-0.85	Low	0
289.30	Acid Soluble Mo, ICP (30ppm)	0049	46.60	7.000	54.78	21.75	5.162	16	-0.38	OK	0
289.30	Acid Soluble Mo, ICP (30ppm)	0102	46.98	10.07	54.78	21.75	5.162	16	-0.36	OK	0
289.30	Acid Soluble Mo, ICP (30ppm)	0444	52.69	1.160	54.78	21.75	5.162	16	-0.10	OK	0
289.30	Acid Soluble Mo, ICP (30ppm)	0433	56.00	2.000	54.78	21.75	5.162	16	0.06	OK	0
289.30	Acid Soluble Mo, ICP (30ppm)	0096	57.00	1.800	54.78	21.75	5.162	16	0.10	OK	0
289.30	Acid Soluble Mo, ICP (30ppm)	0452	57.48	0.4300	54.78	21.75	5.162	16	0.12	OK	0
289.30	Acid Soluble Mo, ICP (30ppm)	0524	58.75	5.802	54.78	21.75	5.162	16	0.18	OK	0
289.30	Acid Soluble Mo, ICP (30ppm)	0516	65.00	10.00	54.78	21.75	5.162	16	0.47	OK	0
289.30	Acid Soluble Mo, ICP (30ppm)	0450	72.00	14.00	54.78	21.75	5.162	16	0.79	OK	0
289.30	Acid Soluble Mo, ICP (30ppm)	0027	75.00	10.00	54.78	21.75	5.162	16	0.93	High	0
289.30	Acid Soluble Mo, ICP (30ppm)	0255	83.54	1.266	54.78	21.75	5.162	16	1.32	High	0
289.30	Acid Soluble Mo, ICP (30ppm)	0555	236.5	7.000	54.78	21.75	5.162	16	8.36	High	0
289.33	Acid Soluble Mo, ICP, 2017.02 (30ppm)	0106	0.0072	0.0001	56.18	12.84	3.912	7	-3.95	Low	0
289.33	Acid Soluble Mo, ICP, 2017.02 (30ppm)	0486	50.00	8.000	56.18	12.84	3.912	7	-0.44	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (30ppm)	0423	53.55	2.030	56.18	12.84	3.912	7	-0.19	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (30ppm)	0009	57.00	8.000	56.18	12.84	3.912	7	0.06	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (30ppm)	0546	60.03	5.375	56.18	12.84	3.912	7	0.27	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (30ppm)	0037	62.23	1.690	56.18	12.84	3.912	7	0.43	OK	0
289.33	Acid Soluble Mo, ICP, 2017.02 (30ppm)	0527	73.54	2.285	56.18	12.84	3.912	7	1.22	OK	0
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (30ppm)	0501	30.72	0.2600	42.26	13.15	0.4633	3	-0.88		0
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (30ppm)	0368	39.48	0.4100	42.26	13.15	0.4633	3	-0.21		0
289.34	Acid Soluble Mo, ICP, EPA 3050B/6010C (30ppm)	0515	56.58	0.7200	42.26	13.15	0.4633	3	1.09		0
289.99	Acid Soluble Mo, Other (30ppm)	0390	58.00	1.200	62.07	3.544	5.867	3	-1.15		0
289.99	Acid Soluble Mo, Other (30ppm)	0405	63.70	3.400	62.07	3.544	5.867	3	0.46		0
289.99	Acid Soluble Mo, Other (30ppm)	0009	64.50	13.00	62.07	3.544	5.867	3	0.69		0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
291.00	Acid Soluble Ni, AA, test portion 2006.03 modified w/dual acid (ppm)	0550	111.3	0.0500				1			0
291.30	Acid Soluble Ni, ICP (ppm)	0444	151.0	2.000	234.7	66.83	12.92	7	-1.13	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0035	185.0	2.000	234.7	66.83	12.92	7	-0.67	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0482	188.5	1.000	234.7	66.83	12.92	7	-0.63	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0027	257.3	44.45	234.7	66.83	12.92	7	0.31	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0450	270.5	9.000	234.7	66.83	12.92	7	0.48	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0524	288.6	12.00	234.7	66.83	12.92	7	0.73	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0096	302.0	20.00	234.7	66.83	12.92	7	0.91	NA	0
291.30	Acid Soluble Ni, ICP (ppm)	0555	< 0.5		234.7	66.83	12.92	7			5
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0009	330.0	40.00	339.1	7.883	39.85	5	-1.16		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0037	333.1	6.373	339.1	7.883	39.85	5	-0.77		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0527	339.5	11.70	339.1	7.883	39.85	5	0.04		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0117	343.5	57.00	339.1	7.883	39.85	5	0.55		0
291.33	Acid Soluble Ni, ICP, 2017.02 (ppm)	0515	349.6	84.17	339.1	7.883	39.85	5	1.33		0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0515	276.5	16.74				2			0
291.34	Acid Soluble Ni, ICP, EPA 3050B/6010C (ppm)	0368	284.4	51.55				2			0
291.99	Acid Soluble Ni, Other (ppm)	0255	235.5	24.51	300.0	64.75	39.17	3	-1.00		0
291.99	Acid Soluble Ni, Other (ppm)	0405	299.5	23.00	300.0	64.75	39.17	3	-0.01		0
291.99	Acid Soluble Ni, Other (ppm)	0009	365.0	70.00	300.0	64.75	39.17	3	1.00		0
301.30	Acid Soluble Se, ICP (ppm)	0524	1.940	0.0400	317.9	543.1	36.75	3	-0.58		0
301.30	Acid Soluble Se, ICP (ppm)	0501	6.860	0.2200	317.9	543.1	36.75	3	-0.57		0
301.30	Acid Soluble Se, ICP (ppm)	0555	945.0	110.0	317.9	543.1	36.75	3	1.15		0
301.30	Acid Soluble Se, ICP (ppm)	0027	< 20		317.9	543.1	36.75	3			5
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0527	4.907	0.9454				2			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0037	7.889	1.328				2			0
301.33	Acid Soluble Se, ICP, 2017.02 (ppm)	0009	< 22					2			5
301.99	Acid Soluble Se, Other (ppm)	0405	5.000	0.0000	7.273	2.433	0.2788	4	-0.93		0
301.99	Acid Soluble Se, Other (ppm)	0390	6.350	0.4600	7.273	2.433	0.2788	4	-0.38		0
301.99	Acid Soluble Se, Other (ppm)	0009	7.050	0.1000	7.273	2.433	0.2788	4	-0.09		0
301.99	Acid Soluble Se, Other (ppm)	0255	10.69	0.5550	7.273	2.433	0.2788	4	1.41		0
311.32	Sodium, ICP, 2006.03 test portion (%)	0521	1.056	0.0000				1			0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0423	1.035	0.0100	1.125	0.0751	0.0379	5	-1.20		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0009	1.100	0.0000	1.125	0.0751	0.0379	5	-0.33		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0035	1.105	0.1300	1.125	0.0751	0.0379	5	-0.27		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0546	1.147	0.0161	1.125	0.0751	0.0379	5	0.29		0
311.33	Sodium, ICP, test portion as in 2017.02 (%)	0527	1.239	0.0334	1.125	0.0751	0.0379	5	1.51		0
311.99	Sodium, Other (%)	0354	1.095	0.0500	1.110	0.0218	0.0267	3	-0.69		0
311.99	Sodium, Other (%)	0482	1.100	0.0200	1.110	0.0218	0.0267	3	-0.46		0
311.99	Sodium, Other (%)	0096	1.135	0.0100	1.110	0.0218	0.0267	3	1.15		0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0029	0.0028	0.0002	0.0054	0.0031	0.0005	6	-0.74	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0553	0.0035	0.0001	0.0054	0.0031	0.0005	6	-0.56	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0550	0.0036	0.0009	0.0054	0.0031	0.0005	6	-0.53	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0535	0.0059	0.0002	0.0054	0.0031	0.0005	6	0.14	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0533	0.0067	0.0002	0.0054	0.0031	0.0005	6	0.36	OK	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0485	0.0465	0.0013	0.0054	0.0031	0.0005	6	11.65	High	0
321.00	Acid Soluble Zn, AA, inorganic 965.09 (%)	0538	0.0725	0.0050	0.0054	0.0031	0.0005	6	19.05	High	1
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0096	0.0007	0.0000	0.0059	0.0060	0.0035	8	-0.79	OK	0

Method Code	Analyte Name and Method (Units)	Lab Code	Lab Data		Method Values			# Tests	Magruder CS Z Score	Method IA Status	Flag
			Value	Range	Rob Mean	Rob SD	R-bar				
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0035	0.0008	0.0007	0.0059	0.0060	0.0035	8	-0.78	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0390	0.0018	0.0002	0.0059	0.0060	0.0035	8	-0.62	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0377	0.0025	0.0010	0.0059	0.0060	0.0035	8	-0.52	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0354	0.0065	0.0010	0.0059	0.0060	0.0035	8	0.09	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0292	0.0100	0.0000	0.0059	0.0060	0.0035	8	0.62	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0482	0.0100	0.0000	0.0059	0.0060	0.0035	8	0.62	OK	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0255	0.0175	0.0250	0.0059	0.0060	0.0035	8	1.76	High	0
321.30	Acid Soluble Zn, ICP, test portion inorganic 965.09 (%)	0552	0.0100	0.0200	0.0059	0.0060	0.0035	8			4
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	0423	0.0020	0.0000	0.0022	0.0002	0.0004	3	-0.78		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	0095	0.0021	0.0004	0.0022	0.0002	0.0004	3	-0.35		0
321.32	Acid Soluble Zn, ICP, test portion 2006.03A-C (%)	0542	0.0025	0.0009	0.0022	0.0002	0.0004	3	1.13		0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0515	0.0018	0.0007	0.0024	0.0007	0.0004	6	-0.81	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0055	0.0018	0.0003	0.0024	0.0007	0.0004	6	-0.81	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0043	0.0020	0.0000	0.0024	0.0007	0.0004	6	-0.48	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0527	0.0028	0.0006	0.0024	0.0007	0.0004	6	0.57	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0546	0.0028	0.0004	0.0024	0.0007	0.0004	6	0.57	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0009	0.0031	0.0006	0.0024	0.0007	0.0004	6	0.96	OK	0
321.33	Acid Soluble Zn, ICP, 2017.02 (%)	0543	0.1550	0.1100	0.0024	0.0007	0.0004	6	199.35	High	2
321.99	Acid Soluble Zn, Other (%)	0515	0.0017	0.0010	0.0024	0.0008	0.0005	6	-0.77	OK	0
321.99	Acid Soluble Zn, Other (%)	0524	0.0019	0.0001	0.0024	0.0008	0.0005	6	-0.61	OK	0
321.99	Acid Soluble Zn, Other (%)	0405	0.0020	0.0000	0.0024	0.0008	0.0005	6	-0.45	OK	0
321.99	Acid Soluble Zn, Other (%)	0389	0.0026	0.0001	0.0024	0.0008	0.0005	6	0.14	OK	0
321.99	Acid Soluble Zn, Other (%)	0368	0.0028	0.0005	0.0024	0.0008	0.0005	6	0.35	OK	0
321.99	Acid Soluble Zn, Other (%)	0516	0.0045	0.0010	0.0024	0.0008	0.0005	6	2.21	OK	0
321.99	Acid Soluble Zn, Other (%)	0027	< 0.0025		0.0024	0.0008	0.0005	6			5
321.99	Acid Soluble Zn, Other (%)	0558	< 0.05		0.0024	0.0008	0.0005	6			5
325.30	Water Soluble Zn, ICP (%)	0555	0.0100	0.0000				1			0
431.99	Soluble Si in nonliquids, Other (1.9%)	0550	7.350	0.1000				1			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, 3 = removed from stats, 4 = rejected due to 0s submitted and 5 = LOD. 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 grey and included for information only. IA Status describes where your result is relative to the Assigned Value ± IA. Red indicates Higher or Lower, Green indicates within the IA range. Method 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.