

MAGRUDER - Fertilizer Check Sample No. - 200408 Grade 10-15-5 SRN

- Pass 1 Results for 80 Labs - - Pass 2 Results for 79 Labs -

Method	AOAC Ref.	Method Code	No. of Labs	Grand Avq.	Std. Dev.	Average Range of Dups	No. of Labs	Grand Avq.	Std. Dev.	Average Range of Dups
Ammoniacal Nitrogen, MgO Distillation .	920.03	001.10	3	8.25	1.29	0.03	3	8.25	1.29	0.03
Ammoniacal Nitrogen, Other		001.99	9	8.42	1.12	0.08	9	8.42	1.12	0.08
Method Group 001.XX PCT			12	8.38	1.14	0.07	12	8.38	1.14	0.07
Nitrogen From Urea, Urease (as N)	959.03	005.00	2	5.96	4.02	0.06	2	5.96	4.02	0.06
Percent Urea, Urease (as Urea)	959.03	007.00	1	2.32	0.06	0.09	1	2.32	0.06	0.09
Percent Urea, Other		007.99	1	3.65	0.06	0.08	1	3.65	0.06	0.08
Method Group 007.XX PCT			2	2.98	0.77	0.08	2	2.98	0.77	0.08
Total Nitrogen, Modified Comprehensive	978.02	010.11	7	9.94	0.08	0.04	7	9.94	0.08	0.04
Total Nitrogen, Salicylic	955.04D	010.12	6	9.94	0.16	0.06	6	9.94	0.16	0.06
Total Nitrogen, Combustion		010.60	47	9.95	0.14	0.09	45	9.95	0.13	0.08
Total Nitrogen, Other		010.99	6	10.02	0.23	0.27	7	10.09	0.29	0.25
Method Group 010.XX PCT			68	9.96	0.16	0.10	63	9.95	0.14	0.08
Total Phosphate, Grav Quimociac	962.02	020.10	8	15.07	0.19	0.08	7	15.06	0.19	0.05
Total Phosphate, Spectrometric	958.01	020.20	17	14.96	0.24	0.14	16	14.93	0.21	0.12
Total Phosphate, Automated	978.01	020.40	7	14.96	0.10	0.08	7	14.96	0.10	0.08
Total Phosphate, ICP		020.50	4	15.44	0.30	0.03	4	15.44	0.30	0.03
Total Phosphate, Other		020.99	2	14.88	0.07	0.09	2	14.88	0.07	0.09
Method Group 020.XX PCT			38	15.03	0.26	0.10	36	15.02	0.25	0.09
Insoluble Phosphate, Automated	978.01	030.40	1	0.05	0.03	0.04	1	0.05	0.03	0.04
InDir Available Phosphate, Automated ..	960.02	040.40	1	14.93	0.04	0.05	1	14.93	0.04	0.05
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	12	15.04	0.11	0.03	11	15.05	0.11	0.02
Dir Available Phosphate, Automated	978.01	041.40	5	14.99	0.29	0.07	5	14.99	0.29	0.07
Dir Available Phosphate, ICP		041.50	8	14.98	0.50	0.21	8	14.98	0.50	0.21
Dir Available Phosphate, EDTA Extract .	993.01	041.60	10	14.97	0.16	0.10	9	14.97	0.15	0.07
Method Group 041.XX PCT			36	14.97	0.32	0.10	32	15.03	0.24	0.07
Water Soluble Phosphate, Other		048.99	1	8.86	0.95	1.35	1	8.86	0.95	1.35
Soluble Potash, STPB Oxalate	958.02	050.00	20	5.04	0.19	0.07	19	5.04	0.20	0.06
Soluble Potash, STPB Citrate	969.04	050.10	1	4.68	0.00	0.01	1	4.68	0.00	0.01
Soluble Potash, AA (Oxalate)		050.30	10	5.00	0.22	0.07	10	5.00	0.22	0.07
Soluble Potash, ICP (Oxalate)		050.50	6	4.88	0.20	0.18	6	4.88	0.20	0.18
Soluble Potash, ICP (Citrate)		050.51	9	4.98	0.13	0.07	9	4.98	0.13	0.07
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	4	5.02	0.05	0.02	4	5.02	0.05	0.02
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	6	5.01	0.17	0.05	6	5.01	0.17	0.05
Soluble Potash, Other		050.99	13	5.10	0.19	0.09	13	5.10	0.19	0.09
Method Group 050.XX PCT			69	5.01	0.19	0.08	64	5.03	0.19	0.06
Acid Soluble Calcium, ICP		101.30	4	0.01	0.01	0.00	4	0.01	0.01	0.00
Acid Soluble Magnesium, AA	984.01	121.00	1	0.22	0.00	0.00	1	0.22	0.00	0.00
Acid Soluble Magnesium, ICP		121.30	6	0.03	0.00	0.00	6	0.03	0.00	0.00
Method Group 121.XX PCT			9	0.09	0.10	0.03	8	0.08	0.09	0.00

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Method	AOAC Ref.	Method Code	No. of Labs	Grand Avq.	Std. Dev.	Average Range of Dups	No. of Labs	Grand Avq.	Std. Dev.	Average Range of Dups
Sulfur, Gravimetric	980.02a	144.01	10	10.54	0.71	0.18	9	10.56	0.74	0.13
Sulfur, Gravimetric	980.02b	144.02	5	10.04	0.57	0.14	5	10.04	0.57	0.14
Sulfur, Other		144.99	15	9.86	0.45	0.10	15	9.86	0.45	0.10
Method Group 144.XX PCT			30	10.12	0.64	0.13	29	10.11	0.65	0.12
Arsenic, ICP		151.30	4	3.82	1.09	0.31	4	3.82	1.09	0.31
Acid Soluble Boron, Other		165.99	4	0.001	0.001	0.000	4	0.001	0.001	0.000
Cadmium, Atomic Absorption		181.00	1	7.60	0.28	0.40	1	7.60	0.28	0.40
Cadmium, ICP		181.30	6	7.82	0.60	0.09	6	7.82	0.60	0.09
Method Group 181.XX PPM			7	7.79	0.56	0.14	7	7.79	0.56	0.14
Water Soluble Chlorine, Titrimetric ...	928.02	190.00	2	0.14	0.10	0.02	2	0.14	0.10	0.02
Water Soluble Chlorine, Other		190.99	2	2.42	2.79	0.16	2	2.42	2.79	0.16
Method Group 190.XX PCT			4	1.28	2.20	0.09	3	0.09	0.10	0.01
Chromium, Atomic Absorption		191.00	1	68.00	1.41	2.00	1	68.00	1.41	2.00
Chromium, ICP		191.30	5	58.84	1.62	1.12	5	58.84	1.62	1.12
Method Group 191.XX PPM			6	60.37	3.88	1.26	6	60.37	3.88	1.26
Acid Soluble Cobalt, AA		202.00	1	1.65	0.35	0.50	1	1.65	0.35	0.50
Acid Soluble Cobalt, ICP	965.11	202.30	2	0.43	0.42	0.52	2	0.43	0.42	0.52
Method Group 202.XX PPM			3	0.84	0.72	0.51	3	0.84	0.72	0.51
Acid Soluble Copper, Atomic Absorption	975.01	221.00	1	0.0005	0.0000	0.0001	1	0.0005	0.0000	0.0001
Acid Soluble Copper, ICP		221.30	5	0.0007	0.0007	0.0000	4	0.0008	0.0008	0.0000
Method Group 221.XX PCT			6	0.0007	0.0007	0.0000	5	0.0007	0.0007	0.0000
Acid Soluble Iron, Atomic Absorption ..	980.01	241.00	1	0.65	0.01	0.02	1	0.65	0.01	0.02
Acid Soluble Iron, ICP		241.30	5	0.06	0.00	0.00	5	0.06	0.00	0.00
Method Group 241.XX PCT			9	0.17	0.21	0.01	8	0.18	0.22	0.01
Lead, Atomic Absorption		251.00	1	1.80	0.28	0.40	1	1.80	0.28	0.40
Lead, ICP		251.30	1	2.05	0.07	0.10	1	2.05	0.07	0.10
Method Group 251.XX PPM			2	1.93	0.22	0.25	2	1.93	0.22	0.25
Acid Soluble Manganese, AA	972.02a	261.00	1	0.008	0.000	0.000	1	0.008	0.000	0.000
Acid Soluble Manganese, ICP	972.02a	261.30	6	0.009	0.001	0.000	6	0.009	0.001	0.000
Acid Soluble Manganese, ICP	972.02b	261.31	2	0.009	0.000	0.000	2	0.009	0.000	0.000
Method Group 261.XX PCT			9	0.009	0.001	0.000	9	0.009	0.001	0.000
Mercury, Atomic Absorption		281.00	1	0.03	0.00	0.00	1	0.03	0.00	0.00
Molybdenum, ICP		289.30	5	1.04	0.31	0.04	5	1.04	0.31	0.04
Nickel, Atomic Absorption		291.00	1	5.80	0.42	0.60	1	5.80	0.42	0.60
Nickel, ICP		291.30	5	5.00	0.42	0.20	5	5.00	0.42	0.20
Method Group 291.XX PPM			6	5.13	0.51	0.27	6	5.13	0.51	0.27
Sodium, Flame Photometric	974.01	311.30	1	0.03	0.00	0.00	1	0.03	0.00	0.00
Sodium, Other		311.99	5	0.03	0.00	0.00	4	0.03	0.00	0.00
Method Group 311.XX PCT			7	0.05	0.04	0.00	7	0.05	0.04	0.00

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Acid Soluble Zinc, Atomic Absorption ..	975.02	321.00	1	0.006	0.000	0.000	1	0.006	0.000	0.000
Acid Soluble Zinc, ICP		321.30	6	0.005	0.000	0.000	6	0.005	0.000	0.000
Method Group 321.XX PCT			7	0.006	0.000	0.000	7	0.006	0.000	0.000

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 001.10 PCT Ammoniacal Nitrogen <u>MgO Distillation</u>			Meth: 005.00 PCT Nitrogen From Urea <u>Urease (as N)</u>			Meth: 010.12 PCT Total Nitrogen <u>Salicylic</u>			Meth: 010.60 PCT Total Nitrogen <u>Combustion</u>			Meth: 010.99 PCT Total Nitrogen <u>Other</u>		
232	9.91	1.29	251	9.44	.87	137	10.03	.54	Avg	9.95		420	8.04 s	-7.22
Avg	8.25		Avg	5.96		Avg	9.94		231	9.93	-.18			
288	7.47	-.60	288	2.49	-.87	397	9.92	-.22	247	9.93	-.20	Meth: 010.XX PCT		
324	7.37	-.69				185	9.90	-.28	425	9.94	-.24	<u>Total Nitrogen</u>		
			Meth: 007.00 PCT Percent Urea <u>Urease (as Urea)</u>			211	9.84	-.62	409	9.95	-.42	320	10.75 s	5.79
			247	2.32	.71	254	9.75	-1.25	055	9.90	-.44	030	10.53 s	4.18
Meth: 001.99 PCT Ammoniacal Nitrogen <u>Other</u>						Meth: 010.60 PCT Total Nitrogen <u>Combustion</u>			262	9.87	-.61	157	10.35 A	2.93
106	10.02	1.42				034	9.88	-.63	034	9.88	-.63	300	10.00 R	2.60
234	9.99	1.39	Meth: 007.99 PCT Percent Urea <u>Other</u>			131	9.86	-.65	131	9.86	-.65	102	10.21	1.97
390	9.86	1.28	029	3.65	.71	296	9.87	-.66	296	9.87	-.66	405	10.21	1.86
Avg	8.42					022	9.91	-.70	022	9.91	-.70	029	10.20	1.82
420	7.97	-.42	Meth: 007.XX PCT <u>Percent Urea</u>			043	10.13	1.72	411	9.85	-.82	043	10.13	1.62
397	7.69	-.66	029	3.65	.87	037	10.04 R	1.68	351	9.84	-.86	037	10.04 R	1.59
247	7.68	-.67				422	10.17	1.68	291	9.83	-.92	422	10.17	1.59
398	7.57	-.76	Meth: 007.XX PCT <u>Percent Urea</u>			102	10.14	1.40	041	9.82	-.97	394	10.17	1.55
096	7.55	-.78	029	3.65	.87	136	10.10	1.12	027	9.82	-1.02	102	10.14	1.32
193	7.50	-.82	Avg	2.98		024	10.09	1.06	307	9.85	-1.08	136	10.10	1.06
			247	2.32	-.87	369	10.07	1.05	095	9.78	-1.29	024	10.09	1.00
Meth: 001.XX PCT Ammoniacal Nitrogen <u>Other</u>						361	10.07	.91	330	9.80	-1.37	369	10.07	.99
106	10.02	1.44	Meth: 010.11 PCT Total Nitrogen <u>Modified Comprehensi</u>			376	10.05	.84	177	9.86 R	-1.97	361	10.07	.86
234	9.99	1.41	320	10.75 s	10.56	049	10.01	.83	007	9.70	-2.19	376	10.05	.80
232	9.91	1.34	288	10.04	1.24	381	10.02	.69	324	9.62 s	-2.67	049	10.01	.78
390	9.86	1.30	415	9.98	.63	117	9.96	.69	426	9.58	-2.81	381	10.02	.66
Avg	8.38		220	9.98	.52	023	10.01	.53	389	9.32 s	-4.75	117	9.96	.65
420	7.97	-.37	322	9.95	.07	360	9.98	.51				288	10.04	.64
397	7.69	-.61	Avg	9.94		377	10.01	.50	Meth: 010.99 PCT Total Nitrogen <u>Other</u>			137	10.03	.57
247	7.68	-.62	090	9.93	-.23	251	10.01	.47	030	10.53 S	1.55	023	10.01	.50
398	7.57	-.71	073	9.93	-.68	275	10.01	.45	405	10.21	.41	360	9.98	.48
096	7.55	-.73	029	9.80	-1.94	028	9.99	.42	394	10.17	.28	377	10.01	.48
193	7.50	-.77				009	9.97	.41	Avg	10.02		275	10.01	.43
288	7.47	-.80	Meth: 010.12 PCT Total Nitrogen <u>Salicylic</u>			096	10.00	.35	398	9.95	-.52	028	9.99	.40
324	7.37	-.89	102	10.21	1.77	142	9.99	.33	354	9.89	-.90	009	9.97	.38
			325	9.97	.16	394	9.98	.32	042	9.91	-1.03	096	10.00	.33
						025	9.98	.32	300	10.00	-1.30	415	9.98	.32
						035	9.99	.31	368	9.75 S	-2.07	142	9.99	.32
												025	9.98	.30

* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 010.XX PCT			Meth: 010.XX PCT			Meth: 020.20 PCT			Meth: 020.XX PCT			Meth: 020.XX PCT		
<u>Total Nitrogen</u>			<u>Total Nitrogen</u>			<u>Total Phosphate</u>			<u>Total Phosphate</u>			<u>Total Phosphate</u>		
394	9.98	.30	368	9.75 s	-3.70	<u>Spectrometric</u>			426	20.14 s	20.59	234	14.72	-1.25
035	9.99	.29	389	9.32 s	-4.48	425	10.12 s	-23.01	291	15.73	2.85	397	14.71	-1.25
220	9.98	.25	420	8.04 s	-13.72	Meth: 020.40 PCT			307	15.39 s	2.77	369	14.50	-2.13
325	9.97	.16	Meth: 020.10 PCT			Total Phosphate			422	15.70	2.73	389	14.00 s	-4.11
Avg	9.95		Total Phosphate			<u>Automated</u>			381	15.38 R	1.78	330	14.58 s	-4.39
322	9.95	-.03	<u>Grav Quimociac</u>			035	15.06	1.11	411	15.39	1.47	425	10.12 s	-19.74
398	9.95	-.11	411	15.39	1.70	193	15.06	.98	361	15.25	.90	Meth: 030.40 PCT		
090	9.93	-.16	300	15.09 R	.90	320	15.02	.58	142	15.20	.89	Insoluble Phosphate		
231	9.93	-.16	117	15.21	.76	096	14.98	.16	262	15.15	.79	<u>Automated</u>		
247	9.93	-.19	114	15.08	.35	Avg	14.96		117	15.21	.74	096	0.05	.71
425	9.94	-.23	157	15.06	.05	247	14.92	-.43	300	15.09	.74	Meth: 040.40 PCT		
397	9.92	-.28	Avg	15.06		042	14.90	-.88	390	15.03	.50	InDir Available Phos		
185	9.90	-.37	090	15.04	-.13	409	14.80	-1.73	232	15.15	.50	<u>Automated</u>		
073	9.93	-.39	095	14.86	-1.06	Meth: 020.50 PCT			288	15.12	.42	096 14.93 -.71		
409	9.95	-.40	405	14.81	-1.34	Total Phosphate			114	15.08	.34	Meth: 041.10 PCT		
055	9.90	-.41	Meth: 020.20 PCT			<u>ICP</u>			035	15.06	.29	Dir Available Phosph		
262	9.87	-.58	Total Phosphate			426	20.14 s	15.52	247	15.08	.24	<u>Grav Quimociac</u>		
034	9.88	-.60	<u>Spectrometric</u>			291	15.73	.96	193	15.06	.17	137 15.30 2.27		
131	9.86	-.61	381	15.38 R	2.48	422	15.70	.87	157	15.06	.17	102 15.13 .77		
296	9.87	-.62	142	15.20	1.44	Avg	15.44		231	15.04	.15	211 15.13 .68		
022	9.91	-.66	262	15.15	1.28	361	15.25	-.64	419	15.03	.09	254 15.10 .45		
211	9.84	-.76	232	15.15	1.03	247	15.08	-1.18	090	15.04	.08	Avg 15.05		
411	9.85	-.78	288	15.12	.91	307	15.39 S	-1.94	320	15.02	-.10	136 15.03 -.20		
351	9.84	-.81	390	15.03	.75	330	14.58 S	-4.35	220	14.99	-.13	029 15.02 -.27		
291	9.83	-.87	231	15.04	.53	389	14.00 S	-4.75	096	14.98	-.19	009 15.05 -.36		
041	9.82	-.92	419	15.03	.49	Meth: 020.99 PCT			177	14.95	-.31	022 14.99 -.61		
027	9.82	-.96	220	14.99	.29	Total Phosphate			247	14.92	-.43	322 14.96 -.81		
307	9.85	-1.02	177	14.95	.08	<u>Other</u>			420	14.90	-.50	049 14.95 -.91		
029	9.80	-1.11	Avg	14.93		398	14.89	.11	398	14.89	-.53	296 14.96 R -1.09		
354	9.89	-1.19	420	14.90	-.17	Avg	14.88		042	14.90	-.56	131 14.90 -1.41		
095	9.78	-1.22	030	14.84	-.55	368	14.88	-1.22	095	14.86	-.66	055 14.01 s -9.48		
330	9.80	-1.29	363	14.74	-.95	Meth: 020.99 PCT			368	14.88	-.68	260 13.84 s -10.98		
254	9.75	-1.48	324	14.84	-.96	Total Phosphate			030	14.84	-.80			
042	9.91 R	-1.67	234	14.72	-1.05	<u>Other</u>			405	14.81	-.87			
177	9.86 R	-1.86	397	14.71	-1.05	398	14.89	.11	409	14.80	-.96			
007	9.70	-2.07	324	14.84	-.96	Avg	14.88		324	14.84 R	-1.03			
324	9.62	-2.52	397	14.71	-1.05	368	14.88	-1.22	363	14.74	-1.17			
426	9.58	-2.65	369	14.50	-2.09	Meth: 020.99 PCT			636	14.74	-1.17			
* X=Excluded from lab performance			S/s=Screened Outlier			R=Duplicate Range too large			A=Analysis beyond 3-s limits					

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 050.99 PCT			Meth: 050.XX PCT			Meth: 050.XX PCT			Meth: 121.00 PCT			Meth: 144.01 PCT		
Soluble Potash			<u>Soluble Potash</u>			<u>Soluble Potash</u>			Acid Soluble Magnesi			Sulfur		
<u>Other</u>									<u>AA</u>			<u>Gravimetric</u>		
425	6.54 s	7.48	275	5.15	.89	007	4.93	-.59	193	0.22	.00	324	10.26	-.42
426	5.84 S	3.83	090	5.19	.85	136	4.92	-.62				288	10.41 R	-.45
300	5.75 S	3.36	260	5.15	.78	177	4.92	-.68				397	10.01	-.74
027	5.43	1.71	330	5.17	.74	369	4.91	-.69	Meth: 121.30 PCT			106	9.90	-.92
390	5.39	1.49	131	5.05 R	.73	106	4.91	-.71	Acid Soluble Magnesi			055	9.86	-.96
398	5.24	.71	389	5.15	.71	419	4.99	-.71	<u>ICP</u>					
275	5.15	.62	022	5.15 X	.66	023	4.94 X	-.76	307	0.17 s	42.66			
260	5.15	.49	422	5.14	.61	157	4.87	-.84	422	0.24 s	42.31	Meth: 144.02 PCT		
330	5.17	.31	049	5.04	.54	096	4.86	-.91	232	0.04	.91	Sulfur		
022	5.15 X	.24	102	5.12	.48	022	4.87	-.91	102	0.04	.78	<u>Gravimetric</u>		
Avg	5.10		114	5.11	.44	324	4.95 R	-.96	131	0.04	.60	029	10.78	1.28
325	5.09	-.11	142	5.06	.28	291	4.85	-.96	009	0.03	.17	043	10.42	.67
232	4.95	-.81	028	5.10	.40	251	4.87	-.98	Avg	0.03		330	10.11	.20
360	4.94	-.89	029	5.07	.31	035	4.79	-1.33	288	0.03	-.64	Avg	10.04	
419	4.99	-.90	023	5.07	.31	368	4.82 R	-1.35	320	0.02	-1.81	114	9.65	-.70
177	4.92	-1.03	262	5.05	.31	411	4.78	-1.37				028	9.25	-1.37
368	4.82	-1.65	325	5.09	.31	351	4.77	-1.40	Meth: 121.XX PCT			095	7.90 S	-3.73
247	4.12 S	-5.16	142	5.06	.28	322	4.68	-1.88	<u>Acid Soluble Magnesi</u>			Meth: 144.99 PCT		
376	2.50 s	-13.60	025	5.06	.15	095	4.68	-1.90	307	0.17 R	1.99	Sulfur		
			361	5.04	.04	354	4.70 R	-1.96	422	0.24	1.76	<u>Other</u>		
			Avg	5.03		307	4.69 R	-2.00	193	0.22	1.59	262	10.65	1.76
			137	5.00	-.15	193	4.54	-2.64	Avg	0.08		220	10.35	1.09
			231	5.02	-.15	095	4.24 s	-4.26	232	0.04	-.51	291	10.21	.78
			415	5.00	-.16	247	4.12 s	-4.93	102	0.04	-.52	131	10.15	.64
			377	5.00	-.16	376	2.50 s	-13.67	131	0.04	-.52	232	10.03	.39
			220	5.02	-.17				009	0.03	-.55	102	9.98	.35
			211	5.00	-.18	Meth: 101.30 PCT			288	0.03	-.59	422	9.97	.32
			055	5.00	-.18	Acid Soluble Calcium			320	0.02	-.66	023	9.90 X	.11
			288	4.99	-.21	<u>ICP</u>						009	9.88	.05
			009	4.99	-.23	422	1.02 s	144.48	Meth: 144.01 PCT			Avg	9.86	
			029	4.98	-.27	232	0.02	1.56	Sulfur			419	9.82	-.12
			073	5.03	-.30	Avg	0.01		<u>Gravimetric</u>			320	9.84	-.25
			041	4.96	-.37	320	0.01	-.20	251	11.85	1.77	376	9.55	-.69
			350	4.96	-.37	009	0.00	-.46	023	11.77	1.64	368	9.48	-.86
			397	4.96	-.39	307	0.00	-.89	137	10.61	.07	389	9.28	-1.28
			034	4.95	-.43				Avg	10.56		096	8.76	-2.43
			232	4.95	-.43				296	10.52	-.14			
			420	4.95	-.47				157	10.25	-.42	030	0.31 s	-21.06
			360	4.94	-.50				A=Analysis beyond 3-s limits					
* X=Excluded from lab performance			S/s=Screened Outlier			R=Duplicate Range too large								

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 144.XX PCT			Meth: 151.30 PPM			Meth: 181.XX PPM			Meth: 191.30 PPM			Meth: 221.30 PCT		
<u>Sulfur</u>			<u>Arsenic</u>			<u>Cadmium</u>			<u>Chromium</u>			<u>Acid Soluble Copper</u>		
251	11.85	2.71	<u>ICP</u>			193	7.60	-.49	<u>ICP</u>			<u>ICP</u>		
023	11.77	2.58	102	4.47	.61	009	7.40	-.69	232	57.70	-.71	422	0.0020	1.55
029	10.78	1.04	Avg	3.82		376	6.75	-1.85	376	57.60	-.81	Avg	0.0008	
262	10.65	.85	106	3.80	-.09	Meth: 190.00 PCT			Meth: 191.XX PPM			009	0.0005	-.29
137	10.61	.78	247	2.20	-1.48	<u>Water Soluble Chlori</u>			<u>Chromium</u>			232	0.0005	-.30
288	10.41 R	.66	Meth: 165.99 PCT			<u>Titrimetric</u>						288	0.0004 R	-.47
296	10.52	.66	<u>Acid Soluble Boron</u>			422			0.22			1.99		
043	10.42	.50	<u>Other</u>			Avg			0.14			.12		
220	10.35	.38	422	0.002	.96	232			0.05			-.85		
324	10.26	.25	288	0.002	.81	Meth: 190.99 PCT			009			60.25		
157	10.25	.24	307	0.002	.65	<u>Water Soluble Chlori</u>			247			58.10		
291	10.21	.16	Avg	0.001		<u>Other</u>			232			57.70		
330	10.11	.14	232	0.001	-1.23	009			4.83			.87		
131	10.15	.07	Meth: 181.00 PPM			Avg			2.42			Meth: 202.00 PPM		
Avg	10.11		<u>Cadmium</u>			288			0.00			-.87		
232	10.03	-.13	<u>Atomic Absorption</u>			Meth: 190.XX PCT			193			1.65		
397	10.01	-.15	193	7.60	.71	<u>Water Soluble Chlori</u>			Meth: 202.30 PPM			Meth: 241.00 PCT		
102	9.98	-.24	Meth: 181.30 PPM			009			4.83 R			46.21		
422	9.97	-.25	<u>Cadmium</u>			422			0.22			1.26		
023	9.90 X	-.32	<u>ICP</u>			Avg			0.09			Meth: 202.30 PPM		
009	9.88	-.35	102	8.32	.85	232			0.05			-.37		
106	9.90	-.39	106	8.25	.72	288			0.00			-.88		
055	9.86	-.40	247	8.25	.72	Meth: 191.00 PPM			Meth: 202.XX PPM			Meth: 241.30 PCT		
419	9.82	-.44	232	7.95	.23	<u>Chromium</u>			<u>Acid Soluble Cobalt</u>			<u>Acid Soluble Iron</u>		
320	9.84	-.45	Avg	7.82		193			68.00			.71		
114	9.65	-.72	009	7.40	-.70	<u>Atomic Absorption</u>			Avg			0.84		
376	9.55	-.87	376	6.75	-1.79	193			0.36			-.66		
368	9.48	-.98	Meth: 181.XX PPM			Meth: 191.30 PPM			320			0.50		
389	9.28	-1.29	<u>Cadmium</u>			<u>Chromium</u>			<u>Acid Soluble Cobalt</u>			Avg		
028	9.25	-1.32	102	8.32	.96	<u>ICP</u>			193			0.06		
096	8.76	-2.09	106	8.25	.83	009			60.25			.55		
095	7.90 s	-3.41	247	8.25	.83	102			60.56			1.10		
030	0.31 s	-15.17	232	7.95	.30	Avg			58.84			Meth: 221.00 PCT		
Meth: 151.30 PPM			Avg			7.79			247			58.10		
Arsenic			247			58.10			-.46			Meth: 221.00 PCT		
<u>ICP</u>			232			7.95			.30			<u>Acid Soluble Copper</u>		
376	4.80	.97	Meth: 181.XX PPM			Meth: 191.30 PPM			Meth: 202.XX PPM			Meth: 221.00 PCT		
* X=Excluded from lab performance			<u>Cadmium</u>			<u>Chromium</u>			<u>Acid Soluble Cobalt</u>			<u>Atomic Absorption</u>		
S/s=Screened Outlier			102			8.32			1.17			Avg		
R=Duplicate Range too large			106			8.25			-.66			0.06		
A=Analysis beyond 3-s limits			247			8.25			-.83			0.06		
			232			7.95			-.83			-.17		
			Avg			7.79			-.83			-1.68		
			102			8.32			-.83			-4.15		
			106			8.25			-.83			-10.29		
			247			8.25			-.83					
			232			7.95			-.83					
			Avg			7.79			-.83					
			102			8.32			-.83					
			106			8.25			-.83					
			247			8.25			-.83					
			232			7.95			-.83					
			Avg			7.79			-.83					
			102			8.32			-.83					
			106			8.25			-.83					
			247			8.25			-.83					
			232			7.95			-.83					
			Avg			7.79			-.83					
			102			8.32			-.83					
			106			8.25			-.83					
			247			8.25			-.83					
			232			7.95			-.83					
			Avg			7.79			-.83					

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 241.XX PCT <u>Acid Soluble Iron</u>			Meth: 261.30 PCT <u>Acid Soluble Manganese</u>			Meth: 289.30 PPM <u>Molybdenum</u>			Meth: 311.99 PCT <u>Sodium</u>			Meth: 321.XX PCT <u>Acid Soluble Zinc</u>		
193	0.65	2.10	ICP			ICP			Other			422	0.035 s	65.33
422	0.44	1.16	Avg	0.009		102	0.90	-.43	422	0.14 s	29.88	193	0.006	1.92
Avg	0.18		009	0.009	-.15	247	0.55	-1.58	288	0.04 R	1.65	009	0.006	.67
102	0.07	-.53	320	0.009	-.48	Meth: 291.00 PPM <u>Nickel</u>			009	0.04	1.33	307	0.006	.46
131	0.06	-.53	307	0.008	-1.70	<u>Atomic Absorption</u>			232	0.03	.39	Avg	0.006	
232 0.06 -.54			Meth: 261.31 PCT <u>Acid Soluble Manganese</u>			193 5.80 .71			Avg	0.03		232	0.005	-.44
288 0.06 -.55			ICP			Meth: 291.30 PPM <u>Nickel</u>			102	0.03	-.62	288	0.005	-.59
307 0.06 -.57			288 0.009 .81			ICP			307	0.03	-1.10	102	0.005	-.72
320 0.05 R -.61			Avg 0.009			Meth: 311.XX PCT <u>Sodium</u>			193	0.26 s	5.69	320	0.005	-1.05
Meth: 251.00 PPM <u>Lead</u>			131 0.009 -.92			193 0.26 s 5.69			422	0.14	2.35	Meth: 251.30 PPM <u>Lead</u>		
ICP			Meth: 261.XX PCT <u>Acid Soluble Manganese</u>			422 0.14 2.35			Avg	0.05		ICP		
193 1.80 .71			422 0.010 1.23			247 5.10 .34			009	0.04	-.28	247 2.05 .71		
Meth: 251.30 PPM <u>Lead</u>			102 0.010 1.22			106 5.05 .17			288	0.04	-.35	Meth: 251.XX PPM <u>Lead</u>		
ICP			288 0.009 .61			232 4.95 -.60			232	0.03	-.36	247 2.05 .61		
247 2.05 .71			232 0.009 .43			376 4.35 -1.54			320	0.03	-.44	Avg 1.93		
Meth: 251.XX PPM <u>Lead</u>			009 0.009 .23			Meth: 291.XX PPM <u>Nickel</u>			102	0.03	-.45	193 1.80 -1.06		
247 2.05 .61			Avg 0.009			193 5.80 1.44			307	0.03	-.49	Meth: 261.00 PCT <u>Acid Soluble Manganese</u>		
Avg 1.93			320 0.009 -.29			102 5.53 .79			Meth: 321.00 PCT <u>Acid Soluble Zinc</u>			247 2.05 .61		
193 1.80 -1.06			131 0.009 -.34			Avg 5.13			<u>Atomic Absorption</u>			Avg 1.93		
Meth: 261.00 PCT <u>AA</u>			307 0.008 -1.53			106 5.05 -.19			193 0.006 .71			193 1.80 -1.06		
193 0.008 -.71			193 0.008 -1.54			247 5.10 -.21			Meth: 321.30 PCT <u>Acid Soluble Zinc</u>			Meth: 261.30 PCT <u>Acid Soluble Manganese</u>		
Meth: 261.30 PCT <u>ICP</u>			Meth: 281.00 PPM <u>Mercury</u>			232 4.95 -.60			<u>ICP</u>			232 0.009 .25		
422 0.010 1.11			193 0.03 .00			376 4.35 -1.53			422 0.035 s 103.15			422 0.010 1.11		
102 0.010 1.03			Meth: 289.30 PPM <u>Molybdenum</u>			Meth: 311.00 PCT <u>Sodium</u>			009 0.006 1.55			102 0.010 1.03		
232 0.009 .25			ICP			ICP			307 0.006 1.01			232 0.009 .25		
* X=Excluded from lab performance			009 1.35 1.03			193 0.26 S .00			Avg 0.005			232 0.005 -.23		
S/s=Screened Outlier			232 1.30 .86			Meth: 311.30 PCT <u>Sodium</u>			288 0.005 -.52			288 0.005 -.52		
R=Duplicate Range too large			422 1.08 .13			ICP			102 0.005 -.63			320 0.005 -1.16		
A=Analysis beyond 3-s limits			Avg 1.04			232 0.009 .25			320 0.005 -.49			Meth: 261.30 PCT <u>Acid Soluble Manganese</u>		

Method Evaluation - Z Values Based on 1 Reports

Method Code	Number Of Labs	Avg Bias of Labs	Std Dev of Biases	Std Dev Within Labs	Method Code	Number Of Labs	Avg Bias of Labs	Std Dev of Biases	Std Dev Within Labs
001.10	3	0.00	1.12	0.01	151.30	4	0.00	1.06	0.20
001.99	9	0.00	1.03	0.05	151.XX	4	0.00	1.06	0.20
001.XX	12	0.00	1.02	0.04	165.99	4	0.000	0.833	0.596
005.00	2	0.00	1.22	0.01	165.XX	4	0.000	0.833	0.596
005.XX	2	0.00	1.22	0.01	181.30	6	0.00	1.04	0.09
007.XX	2	0.00	1.22	0.06	181.XX	7	0.00	1.03	0.16
010.11	8	1.30	3.78	0.77	190.00	2	0.00	1.21	0.15
010.12	6	0.00	1.01	0.26	190.99	2	0.00	1.22	0.04
010.60	50	- 0.08	1.24	0.53	190.XX	4	11.55	23.11	0.77
010.99	9	- 0.94	2.49	0.78	191.30	5	0.00	0.89	0.51
010.XX	70	- 0.14	2.13	0.75	191.XX	6	0.00	1.02	0.22
020.10	8	0.02	0.95	0.35	202.30	2	0.00	0.23	0.85
020.20	18	- 1.16	5.55	0.48	202.XX	3	0.00	0.98	0.45
020.40	7	0.00	0.92	0.46	221.30	5	- 0.092	0.9577	0.0398
020.50	8	0.97	6.18	1.35	221.XX	6	- 0.074	0.9660	0.0432
020.99	2	0.00	0.15	0.86	241.30	8	20.71	63.13	3.11
020.XX	42	- 0.07	4.61	0.78	241.XX	9	- 0.07	0.99	0.03
041.10	14	- 1.52	3.81	0.26	251.XX	2	0.00	0.80	0.66
041.20	2	0.00	0.00	0.00	261.30	6	0.000	0.883	0.517
041.40	5	0.00	1.05	0.16	261.31	2	0.000	1.118	0.354
041.50	9	- 0.18	1.07	0.50	261.XX	9	0.000	0.920	0.438
041.60	10	0.02	0.94	0.47	289.30	5	0.00	1.05	0.10
041.XX	34	- 2.11	6.59	0.57	289.XX	5	0.00	1.05	0.10
050.00	22	- 0.08	1.37	0.59	291.30	5	0.00	1.01	0.30
050.30	11	0.20	1.16	0.46	291.XX	6	0.00	0.98	0.33
050.50	6	0.00	0.85	0.56	311.99	6	5.11	12.15	0.86
050.51	9	0.00	0.95	0.38	311.XX	8	0.71	2.23	0.07
050.60	4	0.00	1.05	0.23	321.30	7	14.530	38.452	6.498
050.61	6	0.00	1.03	0.20	321.XX	7	0.000	1.014	0.217
050.99	18	- 0.23	4.22	0.31					
050.XX	70	- 0.09	2.37	0.56					
101.30	5	28.89	64.62	0.64					
101.XX	5	28.89	64.62	0.64					
121.30	8	8.97	16.98	10.92					
121.XX	9	0.12	1.03	0.56					
144.01	10	- 0.02	0.97	0.17					
144.02	6	- 0.62	1.79	0.12					
144.99	16	- 1.32	5.35	0.13					
144.XX	31	- 0.62	2.90	0.29					