

MAGRUDER - Fertilizer Check Sample No. - 200503 Urea and Micros

- Pass 1 Results for 68 Labs - - Pass 2 Results for 66 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, Other		001.99	2	0.40	0.21	0.09	2	0.40	0.21	0.09
Nitrogen From Urea, Urease (as N)	959.03	005.00	1	45.70	0.71	1.00	1	45.70	0.71	1.00
Nitrogen From Urea, Other		005.99	1	45.61	0.11	0.15	1	45.61	0.11	0.15
Method Group 005.XX PCT			2	45.65	0.42	0.57	2	45.65	0.42	0.57
Percent Urea, Urease (as Urea)	959.03	007.00	2	70.38	28.80	0.11	2	70.38	28.80	0.11
Percent Urea, Other		007.99	2	46.57	0.12	0.18	2	46.57	0.12	0.18
Method Group 007.XX PCT			4	58.47	22.75	0.14	4	58.47	22.75	0.14
Percent Biuret, Spec (as Biuret)	960.04	008.10	3	0.70	0.08	0.02	3	0.70	0.08	0.02
Total Nitrogen, Modified Comprehensive	978.02	010.11	5	46.00	0.23	0.20	5	46.00	0.23	0.20
Total Nitrogen, Salicylic	955.04D	010.12	2	45.94	0.15	0.05	2	45.94	0.15	0.05
Total Nitrogen, Raney	970.03	010.16	1	45.68	0.22	0.31	1	45.68	0.22	0.31
Total Nitrogen, Combustion		010.60	42	46.46	0.26	0.16	39	46.47	0.24	0.12
Total Nitrogen, Other		010.99	6	46.52	0.55	0.15	6	46.52	0.55	0.15
Method Group 010.XX PCT			56	46.39	0.35	0.16	52	46.38	0.32	0.13
Total Phosphate, Spectrometric	958.01	020.20	1	0.60	0.04	0.05	1	0.60	0.04	0.05
Total Phosphate, ICP		020.50	4	0.38	0.60	0.06	4	0.38	0.60	0.06
Method Group 020.XX PCT			5	0.42	0.54	0.06	5	0.42	0.54	0.06
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	1	0.13	0.01	0.02	1	0.13	0.01	0.02
Dir Available Phosphate, ICP		041.50	1	0.02	0.02	0.03	1	0.02	0.02	0.03
Dir Available Phosphate, EDTA Extract .	993.01	041.60	2	0.18	0.02	0.02	2	0.18	0.02	0.02
Method Group 041.XX PCT			4	0.13	0.07	0.02	4	0.13	0.07	0.02
Soluble Potash, STPB Oxalate	958.02	050.00	2	0.45	0.06	0.02	2	0.45	0.06	0.02
Soluble Potash, ICP (Oxalate)		050.50	3	0.39	0.04	0.02	3	0.39	0.04	0.02
Soluble Potash, ICP (Citrate)		050.51	3	0.25	0.25	0.02	3	0.25	0.25	0.02
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	1	0.40	0.00	0.00	1	0.40	0.00	0.00
Soluble Potash, Other		050.99	1	0.49	0.01	0.01	1	0.49	0.01	0.01
Method Group 050.XX PCT			10	0.37	0.16	0.02	9	0.39	0.15	0.01
Free Water, Vacuum Oven	965.08B	060.00	3	0.12	0.12	0.02	3	0.12	0.12	0.02
Acid Soluble Calcium, AA	945.04	101.00	1	5.48	0.08	0.12	1	5.48	0.08	0.12
Acid Soluble Calcium, ICP		101.30	8	5.64	0.68	0.11	8	5.64	0.68	0.11
Method Group 101.XX PCT			9	5.62	0.64	0.11	9	5.62	0.64	0.11
Acid Soluble Magnesium, AA	984.01	121.00	14	1.64	0.06	0.04	13	1.63	0.06	0.03
Acid Soluble Magnesium, ICP		121.30	22	1.63	0.09	0.05	20	1.63	0.08	0.04
Acid Soluble Magnesium, Other		121.99	1	1.66	0.01	0.02	1	1.66	0.01	0.02
Method Group 121.XX PCT			38	1.64	0.09	0.05	34	1.63	0.07	0.03
Water Soluble Magnesium, AA		131.00	1	0.45	0.01	0.01	1	0.45	0.01	0.01
Water Soluble Magnesium, ICP		131.30	2	0.88	0.63	0.06	2	0.88	0.63	0.06
Method Group 131.XX PCT			3	0.74	0.54	0.04	3	0.74	0.54	0.04
Sulfur, Gravimetric	980.02a	144.01	12	5.32	0.14	0.04	12	5.32	0.14	0.04

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Sulfur, Gravimetric	980.02b	144.02	2	5.29	0.08	0.02	2	5.29	0.08	0.02
Sulfur, Spectrometric		144.70	1	4.81	0.13	0.19	1	4.81	0.13	0.19
Sulfur, Other		144.99	18	5.26	0.20	0.09	18	5.26	0.20	0.09
Method Group 144.XX PCT			33	5.27	0.19	0.07	31	5.29	0.18	0.06
Arsenic, Atomic Absorption		151.00	1	360.00	7.07	10.00	1	360.00	7.07	10.00
Arsenic, ICP		151.30	10	334.76	80.95	40.05	9	351.44	61.42	28.53
Arsenic, Other		151.99	1	442.50	10.61	15.00	1	442.50	10.61	15.00
Method Group 151.XX PPM			12	345.84	79.73	35.46	11	360.49	61.42	25.61
Acid Soluble Boron, Spectrometric	982.01	165.00	10	2.303	0.196	0.051	10	2.303	0.196	0.051
Acid Soluble Boron, Other		165.99	18	2.349	0.194	0.075	17	2.338	0.191	0.060
Method Group 165.XX PCT			28	2.332	0.194	0.067	27	2.325	0.192	0.056
Water Soluble Boron, Spectrometric	982.01	171.10	1	2.050	0.028	0.040	1	2.050	0.028	0.040
Water Soluble Boron, Other		171.99	1	2.250	0.000	0.000	1	2.250	0.000	0.000
Method Group 171.XX PCT			2	2.150	0.117	0.020	2	2.150	0.117	0.020
Cadmium, Atomic Absorption		181.00	1	397.50	10.61	15.00	1	397.50	10.61	15.00
Cadmium, ICP		181.30	10	387.19	26.95	7.21	10	387.19	26.95	7.21
Cadmium, Other		181.99	1	402.50	3.54	5.00	1	402.50	3.54	5.00
Method Group 181.XX PPM			12	389.32	25.10	7.67	12	389.32	25.10	7.67
Water Soluble Chlorine, Titrimetric	928.02	190.00	2	0.76	0.34	0.02	2	0.76	0.34	0.02
Water Soluble Chlorine, Other		190.99	1	0.51	0.00	0.00	1	0.51	0.00	0.00
Method Group 190.XX PCT			3	0.68	0.29	0.01	3	0.68	0.29	0.01
Chromium, ICP		191.30	11	350.28	66.25	14.97	10	349.57	68.97	10.69
Chromium, Other		191.99	1	472.00	2.83	4.00	1	472.00	2.83	4.00
Method Group 191.XX PPM			13	336.63	108.82	13.37	12	334.89	112.95	9.67
Acid Soluble Cobalt, AA		202.00	1	297.50	3.54	5.00	1	297.50	3.54	5.00
Acid Soluble Cobalt, ICP	965.11	202.30	11	247.83	34.63	8.48	10	246.94	35.48	4.67
Acid Soluble Cobalt, Other		202.99	1	324.00	7.07	10.00	1	324.00	7.07	10.00
Method Group 202.XX PPM			13	257.51	39.67	8.33	12	257.57	40.78	5.14
Acid Soluble Copper, Atomic Absorption	975.01	221.00	15	1.9652	0.1032	0.0598	15	1.9652	0.1032	0.0598
Acid Soluble Copper, ICP		221.30	24	2.0328	0.1466	0.0483	24	2.0328	0.1466	0.0483
Acid Soluble Copper, Other		221.99	1	2.1300	0.0141	0.0200	1	2.1300	0.0141	0.0200
Method Group 221.XX PCT			40	2.0099	0.1347	0.0519	39	2.0079	0.1349	0.0483
Acid Soluble Iron, Atomic Absorption	980.01	241.00	11	13.01	1.00	0.24	11	13.01	1.00	0.24
Acid Soluble Iron, ICP		241.30	22	12.94	1.63	0.36	21	12.91	1.63	0.23
Acid Soluble Iron, Other		241.99	2	11.14	3.38	0.33	2	11.14	3.38	0.33
Method Group 241.XX PCT			36	12.76	1.70	0.32	35	12.74	1.70	0.24
Lead, Atomic Absorption		251.00	1	1775.0	21.21	30.00	1	1775.0	21.21	30.00
Lead, ICP		251.30	11	1816.9	189.21	102.84	10	1852.0	148.52	78.02
Lead, Other		251.99	2	1973.0	198.65	6.00	2	1973.0	198.65	6.00

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Method Group 251.XX PPM			14	1836.2	188.67	83.80	13	1864.7	155.46	63.25
Acid Soluble Manganese, AA	972.02a	261.00	11	6.053	0.241	0.135	11	6.053	0.241	0.135
Acid Soluble Manganese, AA	972.02b	261.11	3	6.253	0.143	0.076	3	6.253	0.143	0.076
Acid Soluble Manganese, ICP	972.02a	261.30	20	6.439	0.602	0.119	21	6.521	0.696	0.116
Acid Soluble Manganese, ICP	972.02b	261.31	4	6.251	0.261	0.223	4	6.251	0.261	0.223
Acid Soluble Manganese, Other		261.99	2	5.413	0.377	0.085	2	5.413	0.377	0.085
Method Group 261.XX PCT			41	6.267	0.529	0.135	40	6.263	0.533	0.123
Mercury, Atomic Absorption		281.00	1	373.50	3.54	5.00	1	373.50	3.54	5.00
Mercury, ICP		281.30	1	1.07	0.11	0.16	1	1.07	0.11	0.16
Mercury, Other		281.99	1	2.00	0.00	0.00	1	2.00	0.00	0.00
Method Group 281.XX PPM			3	125.52	192.09	1.72	3	125.52	192.09	1.72
Molybdenum, Atomic Absorption		289.00	1	0.01	0.00	0.00	1	0.01	0.00	0.00
Molybdenum, ICP		289.30	13	50.68	23.25	2.99	12	48.47	22.71	1.88
Molybdenum, Other		289.99	1	71.50	6.36	9.00	1	71.50	6.36	9.00
Method Group 289.XX PPM			15	48.69	25.89	3.19	14	46.65	25.51	2.26
Nickel, Atomic Absorption		291.00	1	2250.0	42.43	60.00	1	2250.0	42.43	60.00
Nickel, ICP		291.30	11	2126.8	200.28	65.30	10	2130.6	204.41	41.72
Nickel, Other		291.99	1	2305.0	7.07	10.00	1	2305.0	7.07	10.00
Method Group 291.XX PPM			13	2150.0	192.26	60.64	12	2155.1	194.57	40.60
Selenium, ICP		301.30	6	214.37	161.33	5.90	5	195.94	171.80	2.08
Selenium, Other		301.99	1	315.00	1.41	2.00	1	315.00	1.41	2.00
Method Group 301.XX PPM			7	228.74	152.84	5.35	6	215.79	162.16	2.07
Sodium, Other		311.99	5	1.26	0.09	0.05	5	1.26	0.09	0.05
Method Group 311.XX PCT			5	1.26	0.09	0.05	5	1.26	0.09	0.05
Acid Soluble Zinc, Atomic Absorption ..	975.02	321.00	12	8.335	0.234	0.180	12	8.335	0.234	0.180
Acid Soluble Zinc, ICP		321.30	21	8.453	0.630	0.141	20	8.409	0.607	0.109
Acid Soluble Zinc, Other		321.99	2	7.755	0.782	0.230	2	7.755	0.782	0.230
Method Group 321.XX PCT			35	8.373	0.554	0.159	33	8.342	0.538	0.128
Water Soluble Zinc, ICP		325.30	1	8.489	0.001	0.002	1	8.489	0.001	0.002

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index			
Meth: 001.99 PCT Ammoniacal Nitrogen			Meth: 007.XX PCT Percent Urea			Meth: 010.17 PCT Total Nitrogen Comprehensive			Meth: 010.60 PCT Total Nitrogen Combustion			Meth: 010.XX PCT Total Nitrogen					
Other			190	95.32	1.62	368	44.31	S .00	027	46.34	-.67	136	46.67	.92			
027	0.57	.82	Avg	58.47		025	46.62	-.52	426	46.29	-.83	029	46.64	.89			
Avg	0.40		029	46.52	-.53	Meth: 010.60 PCT Total Nitrogen Combustion			131	46.27	-.85	096	46.65	.84			
105	0.23	-.91	247	45.44	-.57	034	46.20	-1.20	377	46.64	.83	377	46.64	.83			
Meth: 005.00 PCT Nitrogen From Urea Urease (as N)			Meth: 008.10 PCT Percent Biuret Spec (as Biuret)			422	47.88	s 5.84	325	46.07	-1.69	028	46.63	.82			
330	45.70	.71	190	0.76	.77	095	46.90	1.76	106	46.45	R -1.72	390	46.61	.80			
Meth: 005.99 PCT Nitrogen From Urea Other			090	0.74	.54	324	46.85	1.69	073	46.06	-1.74	007	46.61	.73			
027	45.61	-.71	Avg	0.70		055	46.80	1.46	360	46.08	-1.83	009	46.60	.72			
Meth: 005.XX PCT Nitrogen From Urea			419	0.60	-1.27	291	46.70	.98	022	46.24	R -1.88	177	46.60	.69			
027	45.61	-.71	Meth: 010.11 PCT Total Nitrogen Modified Comprehensive			262	46.70	X .95	361	45.99	-2.00	043	46.58	.68			
Meth: 007.00 PCT Percent Urea Urease (as Urea)			414	45.81	-1.02	136	46.67	.84	057	45.99	-2.01	425	46.60	.68			
190	95.32	.87	029	45.80	-1.25	029	46.64	.83	389	45.00	s -6.10	234	46.59	.65			
Avg	70.38		Meth: 010.12 PCT Total Nitrogen Salicylic			390	46.61	.73	042	26.05	s-118.32	307	46.49	.61			
247	45.44	-.87	105	46.28	1.30	096	46.65	.73	Meth: 010.99 PCT Total Nitrogen Other			233	46.54	.53			
Meth: 007.99 PCT Percent Urea Other			090	46.08	.40	028	46.63	.72	354	47.38	1.57	351	46.44	.52			
025	46.62	.65	415	46.04	.18	377	46.64	.72	330	46.90	.78	292	46.53	.48			
Avg	46.57		Meth: 010.16 PCT Total Nitrogen Raney			307	46.49	.69	Avg	46.52		049	46.45	.34			
029	46.52	-1.04	211	46.06	.89	296	46.63	.67	354	47.38	1.57	292	46.46	.26			
Meth: 010.17 PCT Total Nitrogen Comprehensive			Avg	45.94		009	46.60	.59	330	46.90	.78	420	46.43	.25			
368	44.31	S .00	185	45.81	-.85	007	46.61	.58	292	46.46	-.10	024	46.43	.17			
Meth: 010.60 PCT Total Nitrogen Combustion			024	46.43	-.22	043	46.58	.56	420	46.43	-.19	114	46.42	.16			
027	46.34	-.67	114	46.42	-.25	177	46.60	.54	376	46.20	-.60	247	46.40	.14			
426	46.29	-.83	247	46.40	-.34	425	46.60	.51	300	45.73	-1.42	393	46.39	.07			
131	46.27	-.85	049	46.45	-.34	234	46.59	.48	105	44.97	S -2.81	Avg	46.38				
034	46.20	-1.20	393	46.39	-.35	233	46.54	.38	376	46.20	-.60	232	46.37	-.04			
369	46.19	R -1.65	232	46.37	-.42	292	46.53	.25	354	47.38	A 3.14	037	46.35	-.10			
325	46.07	-1.69	023	46.35	-.51	Avg	46.47		330	46.90	1.75	023	46.35	-.11			
106	46.45	R -1.72	037	46.35	-.53	024	46.43	-.22	422	47.88	s 4.70	027	46.34	-.30			
073	46.06	-1.74	351	46.44	-.65	114	46.42	-.25	354	47.38	A 3.14	131	46.27	-.36			
360	46.08	-1.83	024	46.43	-.22	247	46.40	-.34	330	46.90	1.75	426	46.29	-.37			
022	46.24	R -1.88	049	46.45	-.34	049	46.45	-.34	095	46.90	1.62	105	46.28	-.51			
361	45.99	-2.00	393	46.39	-.35	393	46.39	-.35	324	46.85	1.55	034	46.20	-.64			
057	45.99	-2.01	232	46.37	-.42	232	46.37	-.42	055	46.80	1.38	376	46.20	-.64			
389	45.00	s -6.10	023	46.35	-.51	023	46.35	-.51	106	46.80	1.38	090	46.08	-.92			
042	26.05	s-118.32	037	46.35	-.53	037	46.35	-.53	291	46.70	1.02	325	46.07	-.98			
307	46.49	.61	351	46.44	-.65	351	46.44	-.65	211	46.06	-1.00	211	46.06	-1.00			
233	46.54	.53	* 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: 020.XX PCT			Meth: 050.50 PCT			Meth: 050.XX PCT			Meth: 101.XX PCT						
<u>Total Nitrogen</u>			<u>Total Phosphate</u>			<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Acid Soluble Calcium</u>						
073	46.06	-1.02	Avg	0.42		ICP (Oxalate)	368	0.00	-2.51	009	5.69	.20	Avg	5.62				
415	46.04	-1.05	422	0.13	-.55	422	0.87 S	12.28		105	5.48	-.25	232	5.39	-.38			
369	46.19 R	-1.05	307	0.04 X	-.71	324	0.42	.74		Meth: 060.00 PCT			131	5.22	-.64			
360	46.08	-1.14	368	0.00	-.78	420	0.41	.61		Free Water			102	5.16	-.72			
361	45.99	-1.21	Meth: 041.10 PCT			Avg			0.39		<u>Vacuum Oven</u>			307	4.71	-1.44		
057	45.99	-1.22	Dir Available Phosph			307			0.34	-1.26	362	0.28	1.29	420	2.67 s	-4.63		
022	46.24 R	-1.29	<u>Grav Quimociac</u>			Meth: 050.51 PCT					Avg			0.12				
185	45.81	-1.78	296	0.13	.71	Soluble Potash					105	0.06	-.54					
414	45.81	-1.84	Meth: 041.50 PCT			ICP (Citrate)					007	0.03	-.74					
029	45.80	-1.93	Dir Available Phosph			389	0.55	1.19			Meth: 101.00 PCT							
300	45.73	-2.03	<u>ICP</u>			Avg			0.25		Acid Soluble Calcium							
419	45.68	-2.25	393	0.02	.71	393			0.21	-.21	<u>AA</u>			193	1.96 s	5.31		
389	45.00 s	-4.31	Meth: 041.60 PCT			Meth: 050.61 PCT					105			5.48	.71	040	1.70 R	1.57
105	44.97 s	-4.42	Dir Available Phosph			Soluble Potash					Meth: 101.30 PCT			029	1.70	1.20		
368	44.31 s	-6.94	<u>EDTA Extract</u>			Flame (Citrate)					Acid Soluble Calcium			055	1.70	1.12		
042	26.05 s	-89.04	024	0.20	.82	024			0.40	.00	ICP			177	1.70	1.04		
Meth: 020.20 PCT			Avg			0.18	Meth: 050.99 PCT					028			1.69	.96		
Total Phosphate			296			0.16	-.91	Soluble Potash					095			1.68	.70	
<u>Spectrometric</u>			Meth: 041.XX PCT			Other					105			1.64	.49			
234	43.29 S	1207.46	Dir Available Phosph			330			0.49	.71	Avg			5.64				
324	0.60	.71	024	0.20	.96	Meth: 050.XX PCT					232			5.39	-.38			
Avg	0.60		296	0.16	.50	Soluble Potash					131			5.22	-.63			
Meth: 020.50 PCT			296			0.13	.15	ICP					102			5.16	-.71	
Total Phosphate			Avg			0.13		422			0.87 s	3.11	307			4.71	-1.38	
<u>ICP</u>			393			0.02	-1.52	389			0.55	1.05	Meth: 101.99 PCT			296	1.57	-1.14
330	1.35	1.61	Meth: 050.00 PCT			330			0.49	.63	Acid Soluble Calcium			351	1.54	-1.53		
Avg	0.38		Soluble Potash			324			0.42	.18	<u>Other</u>			043	1.56	-1.57		
422	0.13	-.42	<u>STPB Oxalate</u>			420			0.41	.15	420			2.67 S	.00			
307	0.04 X	-.56	193	0.50	.87	024			0.40	.08	Meth: 101.XX PCT							
368	0.00	-.63	Avg			0.45	Meth: 050.XX PCT					Acid Soluble Calcium						
Meth: 020.XX PCT			296			0.40	-.86	Avg			0.39		ICP			095	2.58 s	11.30
Total Phosphate			Avg			0.45		307			0.34	-.33	090			2.10 s	5.67	
234	43.29 s	79.49	Meth: 050.00 PCT			024			0.40	.06	422			6.30	1.06	422	2.05 S	5.03
330	1.35	1.72	Soluble Potash			324			0.42	.18	027			1.78	1.80	354	1.76	1.68
324	0.60	.32	<u>STPB Oxalate</u>			420			0.41	.15	354			1.76	1.68	232	1.69 R	1.53
* X=Excluded from lab performance			193	0.50	.87	024			0.40	.08	Meth: 101.99 PCT							
			Avg			0.45		Meth: 050.XX PCT					Acid Soluble Calcium					
			296	0.40	-.86	Avg			0.39		420			2.67 S	.00			
			Meth: 050.00 PCT			307			0.34	-.33	Meth: 101.99 PCT							
			Soluble Potash			324			0.42	.18	Acid Soluble Calcium							
			<u>STPB Oxalate</u>			420			0.41	.15	Other							
			193	0.50	.87	024			0.40	.08	420			2.67 S	.00			
			Avg			0.45		Meth: 050.XX PCT					Meth: 101.99 PCT					
			296	0.40	-.86	Avg			0.39		Acid Soluble Calcium							
			Meth: 050.00 PCT			307			0.34	-.33	ICP							
			Soluble Potash			324			0.42	.18	095			2.58 s	11.30			
			<u>STPB Oxalate</u>			420			0.41	.15	090			2.10 s	5.67			
			193	0.50	.87	024			0.40	.08	422			6.30	1.06			
			Avg			0.45		Meth: 050.XX PCT					Meth: 101.99 PCT					
			296	0.40	-.86	Avg			0.39		Acid Soluble Calcium							
			Meth: 050.00 PCT			307			0.34	-.33	ICP							
			Soluble Potash			324			0.42	.18	095			2.58 s	11.30			
			<u>STPB Oxalate</u>			420			0.41	.15	090			2.10 s	5.67			
			193	0.50	.87	024			0.40	.08	422			6.30	1.06			
			Avg			0.45		Meth: 050.XX PCT					Meth: 101.99 PCT					
			296	0.40	-.86	Avg			0.39		Acid Soluble Calcium							
			Meth: 050.00 PCT			307			0.34	-.33	ICP							
			Soluble Potash			324			0.42	.18	095			2.58 s	11.30			
			<u>STPB Oxalate</u>			420			0.41	.15	090			2.10 s	5.67			
			193	0.50	.87	024			0.40	.08	422			6.30	1.06			
			Avg			0.45		Meth: 050.XX PCT					Meth: 101.99 PCT					
			296	0.40	-.86	Avg			0.39		Acid Soluble Calcium							
			Meth: 050.00 PCT			307			0.34	-.33	ICP							
			Soluble Potash			324			0.42	.18	095			2.58 s	11.30			
			<u>STPB Oxalate</u>			420			0.41	.15	090			2.10 s	5.67			
			193	0.50	.87	024			0.40	.08	422			6.30	1.06			
			Avg			0.45		Meth: 050.XX PCT					Meth: 101.99 PCT					
			296	0.40	-.86	Avg			0.39		Acid Soluble Calcium							
			Meth: 050.00 PCT			307			0.34	-.33	ICP							
			Soluble Potash			324			0.42	.18	095			2.58 s	11.30			
			<u>STPB Oxalate</u>			420			0.41	.15	090			2.10 s	5.67			
			193	0.50	.87	024			0.40	.08	422			6.30	1.06			
			Avg			0.45		Meth: 050.XX PCT					Meth: 101.99 PCT					
			296	0.40	-.86	Avg			0.39		Acid Soluble Calcium							
			Meth: 050.00 PCT			307			0.34	-.33	ICP							
			Soluble Potash			324			0.42	.18	095			2.58 s	11.30			
			<u>STPB Oxalate</u>			420			0.41	.15	090			2.10 s	5.67			
			193	0.50	.87	024			0.40	.08	422			6.30	1.06			
			Avg			0.45		Meth: 050.XX PCT					Meth: 101.99 PCT					
			296	0.40	-.86	Avg			0.39		Acid Soluble Calcium							
			Meth: 050.00 PCT			307			0.34	-.33	ICP							
			Soluble Potash			324			0.42	.18	095			2.58 s	11.30			
			<u>STPB Oxalate</u>			420			0.41	.15	090			2.10 s	5.67			
			193	0.50	.87	024			0.40	.08	422			6.30	1.06			
			Avg			0.45		Meth: 050.XX PCT					Meth: 101.99 PCT					
			296	0.40	-.86	Avg			0.39		Acid Soluble Calcium							
			Meth: 050.00 PCT			307			0.34	-.33	ICP							
			Soluble Potash			324			0.42	.18	095			2.58 s	11.30			
			<u>STPB Oxalate</u>			420			0.41	.15	090			2.10 s	5.67			
			193	0.50	.87	024			0.40	.08	422			6.30	1.06			
			Avg			0.45		Meth: 050.XX PCT					Meth: 101.99 PCT					
			296	0.40	-.86	Avg			0.39		Acid Soluble Calcium							
			Meth: 050.00 PCT			307			0.34	-.33	ICP							
			Soluble Potash			324			0.42	.18	095			2.58 s	11.30			
			<u>STPB Oxalate</u>			420			0.41	.15	090			2.10 s	5.67			
			193	0.50	.87	024			0.40	.08	422			6.30	1.06			
			Avg			0.45		Meth: 050.XX PCT					Meth: 101.99 PCT					
			296	0.40	-.86	Avg			0.39		Acid Soluble Calcium							
			Meth: 050.00 PCT			307			0.34	-.33	ICP							
			Soluble Potash			324			0.42	.18	095			2.58 s	11.30			

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index										
Meth: 121.30 PCT			Meth: 121.XX PCT			Meth: 121.XX PCT			Meth: 144.01 PCT			Meth: 144.99 PCT												
<u>Acid Soluble Magnesi</u>			<u>Acid Soluble Magnesi</u>			<u>Acid Soluble Magnesi</u>			<u>Sulfur</u>			<u>Sulfur</u>												
<u>ICP</u>			<u>ICP</u>			<u>ICP</u>			<u>Gravimetric</u>			<u>Other</u>												
057	1.70	1.28	027	1.78	2.00	368	1.36 s	-4.13	102	5.21	-.82	368	4.48 s	-4.30										
389	1.73	1.20	354	1.76	1.87	234	1.09 s	-7.35	055	5.10	-1.68	Meth: 144.XX PCT												
096	1.69	.69	232	1.69 R	1.72	419	0.86 s	-10.37	Meth: 144.02 PCT			<u>Sulfur</u>												
102	1.68	.65	057	1.70 R	1.43	420	0.77 s	-11.59	Sulfur			377	5.63	1.95										
042	1.67	.50	389	1.73	1.32	Meth: 131.00 PCT			Sulfur			095	5.55	1.45										
361	1.67	.49	040	1.70	1.31	Water Soluble Magnes			<u>Gravimetric</u>			040	5.52	1.32										
377	1.66	.46	029	1.70	1.02	<u>AA</u>			029			5.36	.87	023	5.52	1.29								
023	1.64	.29	055	1.70	.95	029			0.45	.71	Avg			5.29		360	5.48	1.06						
Avg	1.63		177	1.70	.89	Meth: 131.30 PCT			022			5.22	-.86	260	5.46	.95								
360	1.60	-.42	028	1.69	.82	Water Soluble Magnes			Meth: 144.70 PCT			361			5.43	.77								
330	1.59	-.44	096	1.69	.74	<u>ICP</u>			Sulfur			028			5.42	.70								
426	1.59	-.45	102	1.68	.70	291			1.43	.87	<u>Spectrometric</u>			043			5.38	.50						
106	1.58	-.56	095	1.68	.61	Avg			0.88		393			4.81	.71	262	5.37 X	.45						
376	1.57	-.74	042	1.67	.52	027			0.34	-.86	Meth: 144.99 PCT			029			5.36	.40						
131	1.56	-.79	361	1.67	.51	Meth: 131.XX PCT			Meth: 144.99 PCT			354			5.35	.32	422	5.31	.10					
009	1.54	-1.00	377	1.66	.49	Water Soluble Magnes			Sulfur			177			5.29	.04	Avg			5.29				
307	1.55	-1.05	390	1.66	.43	291			1.43	1.29	023			5.52	1.28	106	5.29	-.04	106			5.29	-.04	
393	1.54	-1.13	105	1.64	.41	Avg			0.74		360			5.48	1.08	419	5.28	-.07	419			5.28	-.07	
291	1.55 R	-1.78	257	1.65	.32	027			0.34	-.75	361			5.43	.82	105	5.28	-.08	029			5.27	-.16	
324	1.48	-1.80	023	1.64	.32	Meth: 144.01 PCT			Sulfur			028			5.42	.76	029	5.27	-.16	296			5.23	-.33
368	1.36 S	-3.60	Avg	1.63		Sulfur			Gravimetric			330			5.29	.58	376	5.25	-.35	376			5.25	-.35
419	0.86 s	-9.09	233	1.61	-.38	095			5.55	1.68	131			5.27	.32	131	5.27	-.38	022			5.22	-.41	
Meth: 121.99 PCT			262	1.60 X	-.40	040			5.52	1.53	422			5.31	.22	022	5.22	-.41	324			5.23	-.43	
<u>Acid Soluble Magnesi</u>			260	1.60	-.40	029			0.45	-.54	177			5.29	.15	324	5.23	-.43	102			5.21	-.44	
<u>Other</u>			360	1.60	-.51	043			5.38	.43	419			5.28	.11	102	5.21	-.44	330			5.29	-.64	
390	1.66	.71	330	1.59	-.54	262			5.37 X	.36	376			5.25	-.25	027	5.14	-.82	027			5.14	-.82	
Avg	1.66		426	1.59	-.56	Avg			5.32		027			5.14	-.59	055	5.10	-1.08	009			5.05	-1.34	
234	1.09 S	-40.67	106	1.58	-.67	106			5.29	-.27	009			5.05	-1.06	009	5.05	-1.34	389			5.05	-1.35	
420	0.77 S	-62.94	376	1.57	-.88	105			5.28	-.35	389			5.05	-1.07	389	5.05	-1.35	232			5.07 R	-1.41	
Meth: 121.XX PCT			296	1.57	-.90	029			5.27	-.43	232			5.07	-1.14	232	5.07 R	-1.41	096			4.98	-1.74	
<u>Acid Soluble Magnesi</u>			131	1.56	-.94	296			5.23	-.68	Avg			5.26		096	4.98	-1.41	291			4.91 R	-2.19	
095	2.58 s	12.80	009	1.54	-1.18	324			5.23	-.79	376			5.25	-.25	291	4.91	-1.82	291			4.91 R	-2.19	
090	2.10 s	6.40	351	1.54	-1.22	Meth: 144.01 PCT			Sulfur			027			5.14	-.59	055	5.10	-1.08	009			5.05	-1.34
422	2.05 s	5.68	307	1.55	-1.23	Sulfur			Gravimetric			009			5.05	-1.06	009	5.05	-1.34	389			5.05	-1.35
193	1.96 A	4.38	043	1.56	-1.25	095			5.55	1.68	131			5.27	.32	131	5.27	-.38	022			5.22	-.41	
* X=Excluded from lab performance			393	1.54	-1.32	040			5.52	1.53	422			5.31	.22	022	5.22	-.41	324			5.23	-.43	
S/s=Screened Outlier			291	1.55 R	-2.05	260			5.46	1.04	177			5.29	.15	324	5.23	-.43	102			5.21	-.44	
R=Duplicate Range too large			291	1.55 R	-2.05	043			5.38	.43	419			5.28	.11	102	5.21	-.44	330			5.29	-.64	
A=Analysis beyond 3-s limits			324	1.48	-2.09	262			5.37 X	.36	376			5.25	-.25	027	5.14	-.82	027			5.14	-.82	

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.XX PPM			Meth: 165.99 PCT			Meth: 165.XX PCT			Meth: 181.30 PPM		
<u>Sulfur</u>			<u>Arsenic</u>			<u>Acid Soluble Boron</u>			<u>Acid Soluble Boron</u>			<u>Cadmium</u>		
393	4.81	-2.73	376	316.00	-.74	090	2.290	-.25	232	2.129	-1.14	023	374.00 X	-.54
368	4.48 s	-4.99	368	295.86	-1.21	234	2.275	-.36	368	2.090	-1.31	009	368.45	-.70
Meth: 151.00 PPM			232 279.00 -1.33			360 2.275 -.36			055 1.990 -1.76			377 366.50 -.79		
Arsenic			291 184.69 R -3.09			376 2.200 -.73			292 0.505 s -9.50			376 344.50 -1.60		
<u>Atomic Absorption</u>			Meth: 165.00 PCT			009 2.188 -.80			393 0.129 s -11.47			291 321.76 S -2.66		
136	360.00	.71	Acid Soluble Boron			232 2.129 -1.20			Meth: 171.10 PCT			368 325.59 S -2.68		
Meth: 151.30 PPM			<u>Spectrometric</u>			368 2.090 -1.39			Water Soluble Boron			Meth: 181.99 PPM		
Arsenic			257 3.650 S 6.92			426 2.020 -1.68			<u>Spectrometric</u>			Cadmium		
ICP			105 2.714 2.10			Meth: 165.XX PCT			296 2.050 .71			<u>Other</u>		
043	430.50	1.40	040 2.474 .87			<u>Acid Soluble Boron</u>			Meth: 171.99 PCT			409 402.50 .71		
247	429.00	1.26	028 2.403 .51			257 3.650 s 6.96			Water Soluble Boron			Meth: 181.XX PPM		
023	384.00 X	.55	Avg 2.303			422 2.743 2.18			<u>Other</u>			Cadmium		
106	374.50	.44	057 2.265 -.21			105 2.714 2.03			027 2.250 .00			419 428.50 1.57		
102	373.33	.38	023 2.300 -.26			354 2.523 R 1.36			Meth: 171.XX PCT			102 428.43 1.56		
Avg	351.44		392 2.270 -.26			042 2.578 X 1.34			Water Soluble Boron			096 408.00 .74		
376	316.00	-.60	296 2.300 -.31			043 2.555 1.21			<u>Water Soluble Boron</u>			409 402.50 .53		
368	295.86	-1.09	029 2.200 -.53			361 2.500 .92			027 2.250 .86			136 397.50 .44		
009	280.75	-1.17	307 2.114 -.97			040 2.474 .77			Avg 2.150			324 392.00 .26		
232	279.00	-1.18	055 1.990 -1.61			324 2.465 .73			296 2.050 -.87			Avg 389.32		
291	184.69 R	-2.96	292 0.505 S -9.18			028 2.403 .40			Meth: 181.00 PPM			247 381.00 -.33		
Meth: 151.99 PPM			393 0.129 S -11.11			291 2.381 .36			Cadmium			106 380.50 -.38		
Arsenic			Meth: 165.99 PCT			330 2.385 .32			Atomic Absorption			023 374.00 X -.66		
<u>Other</u>			Acid Soluble Boron			106 2.355 .16			136 397.50 .71			009 368.45 -.84		
409	442.50	.71	<u>Other</u>			389 2.325 -.13			Meth: 181.30 PPM			377 366.50 -.93		
Meth: 151.XX PPM			422 2.743 2.12			090 2.290 -.18			Cadmium			376 344.50 -1.80		
Arsenic			354 2.523 R 1.32			023 2.300 -.29			ICP			291 321.76 s -2.94		
409	442.50	1.34	042 2.578 X 1.28			234 2.275 -.29			419 428.50 1.54			368 325.59 s -2.95		
043	430.50	1.27	043 2.555 1.15			360 2.275 -.29			102 428.43 1.53			Meth: 190.00 PCT		
247	429.00	1.12	361 2.500 .85			057 2.265 -.32			096 408.00 .77			Water Soluble Chlori		
023	384.00 X	.40	324 2.465 .66			296 2.300 -.34			324 392.00 .29			<u>Titrimetric</u>		
106	374.50	.33	291 2.381 .30			392 2.270 -.36			Avg 387.19			102 1.05 .87		
102	373.33	.25	330 2.385 .26			376 2.200 -.65			247 381.00 -.23			Avg 0.76		
Avg	360.49		106 2.355 .09			029 2.200 -.66			106 380.50 -.28			422 0.47 -.87		
136	360.00	-.08	Avg 2.338			009 2.188 -.73			Meth: 181.30 PPM					
* X=Excluded from lab performance			389 2.325 -.15			307 2.114 -1.10			Cadmium					
S/s=Screened Outlier			Meth: 165.99 PCT			Meth: 165.XX PCT			ICP					
R=Duplicate Range too large			Acid Soluble Boron			Acid Soluble Boron			419 428.50 1.54					
A=Analysis beyond 3-s limits			<u>Other</u>			<u>Other</u>			102 428.43 1.53					
			422 2.743 2.12			422 2.743 2.12			096 408.00 .77					
			354 2.523 R 1.32			354 2.523 R 1.32			324 392.00 .29					
			042 2.578 X 1.28			042 2.578 X 1.28			Avg 387.19					
			043 2.555 1.15			043 2.555 1.15			247 381.00 -.23					
			361 2.500 .85			361 2.500 .85			106 380.50 -.28					
			324 2.465 .66			324 2.465 .66			Meth: 181.30 PPM					
			291 2.381 .30			291 2.381 .30			Cadmium					
			330 2.385 .26			330 2.385 .26			ICP					
			106 2.355 .09			106 2.355 .09			419 428.50 1.54					
			Avg 2.338			Avg 2.338			102 428.43 1.53					
			389 2.325 -.15			389 2.325 -.15			096 408.00 .77					
			Meth: 165.99 PCT			Meth: 165.XX PCT			324 392.00 .29					
			Acid Soluble Boron			Acid Soluble Boron			Avg 387.19					
			<u>Other</u>			<u>Other</u>			247 381.00 -.23					
			422 2.743 2.12			422 2.743 2.12			106 380.50 -.28					
			354 2.523 R 1.32			354 2.523 R 1.32			Meth: 181.30 PPM					
			042 2.578 X 1.28			042 2.578 X 1.28			Cadmium					
			043 2.555 1.15			043 2.555 1.15			ICP					
			361 2.500 .85			361 2.500 .85			419 428.50 1.54					
			324 2.465 .66			324 2.465 .66			102 428.43 1.53					
			291 2.381 .30			291 2.381 .30			096 408.00 .77					
			330 2.385 .26			330 2.385 .26			324 392.00 .29					
			106 2.355 .09			106 2.355 .09			Avg 387.19					
			Avg 2.338			Avg 2.338			247 381.00 -.23					
			389 2.325 -.15			389 2.325 -.15			106 380.50 -.28					
			Meth: 165.99 PCT			Meth: 165.XX PCT			Meth: 181.30 PPM					
			Acid Soluble Boron			Acid Soluble Boron			Cadmium					
			<u>Other</u>			<u>Other</u>			ICP					
			422 2.743 2.12			422 2.743 2.12			419 428.50 1.54					
			354 2.523 R 1.32			354 2.523 R 1.32			102 428.43 1.53					
			042 2.578 X 1.28			042 2.578 X 1.28			096 408.00 .77					
			043 2.555 1.15			043 2.555 1.15			324 392.00 .29					
			361 2.500 .85			361 2.500 .85			Avg 387.19					
			324 2.465 .66			324 2.465 .66			247 381.00 -.23					
			291 2.381 .30			291 2.381 .30			106 380.50 -.28					
			330 2.385 .26			330 2.385 .26			Meth: 181.30 PPM					
			106 2.355 .09			106 2.355 .09			Cadmium					
			Avg 2.338			Avg 2.338			ICP					
			389 2.325 -.15			389 2.325 -.15			419 428.50 1.54					
			Meth: 165.99 PCT			Meth: 165.XX PCT			102 428.43 1.53					
			Acid Soluble Boron			Acid Soluble Boron			096 408.00 .77					
			<u>Other</u>			<u>Other</u>			324 392.00 .29					
			422 2.743 2.12			422 2.743 2.12			Avg 387.19					
			354 2.523 R 1.32			354 2.523 R 1.32			247 381.00 -.23					
			042 2.578 X 1.28			042 2.578 X 1.28			106 380.50 -.28					
			043 2.555 1.15			043 2.555 1.15			Meth: 181.30 PPM					
			361 2.500 .85			361 2.500 .85			Cadmium					
			324 2.465 .66			324 2.465 .66			ICP					
			291 2.381 .30			291 2.381 .30			419 428.50 1.54					
			330 2.385 .26			330 2.385 .26			102 428.43 1.53					
			106 2.355 .09			106 2.355 .09			096 408.00 .77					
			Avg 2.338			Avg 2.338			324 392.00 .29					
			389 2.325 -.15			389 2.325 -.15			Avg 387.19					
			Meth: 165.99 PCT			Meth: 165.XX PCT			247 381.00 -.23					
			Acid Soluble Boron			Acid Soluble Boron			106 380.50 -.28					
			<u>Other</u>			<u>Other</u>			Meth: 181.30 PPM					
			422 2.743 2.12			422 2.743 2.12			Cadmium					
			354 2.523 R 1.32			354 2.523 R 1.32			ICP					
			042 2.578 X 1.28			042 2.578 X 1.28			419 428.50 1.54					
			043 2.555 1.15			043 2.555 1.15			102 428.43 1.53					
			361 2.500 .85			361 2.500 .85			096 408.00 .77					
			324 2.465 .66			324 2.465 .66			324 392.00 .29					
			291 2.381 .30			291 2.381 .30			Avg 387.19					
			330 2.385 .26			330 2.385 .26			247 381.00 -.23					
			106 2.355 .09			106 2.355 .09			106 380.50 -.28					
			Avg 2.338			Avg 2.338			Meth: 181.30 PPM					
			389 2.325 -.15			389 2.325 -.15			Cadmium					
			Meth: 165.99 PCT			Meth: 165.XX PCT			ICP					
			Acid Soluble Boron			Acid Soluble Boron			419 428.50 1.54					
			<u>Other</u>			<u>Other</u>			102 428.43 1.53					
			422 2.743 2.12			422 2.743 2.12			096 408.00 .77					
			354 2.523 R 1.32			354 2.523 R 1.32			324 392.00 .29					
			042 2.578 X 1.28			042 2.578 X 1.28			Avg 387.19					
			043 2.555 1.15			043 2.555 1.15			247 381.00 -.23					
			361 2.500 .85			361 2.500 .85			106 380.50 -.28					
			324 2.465 .66			324 2.465 .66			Meth: 181.30 PPM					
			291 2.381 .30			291 2.381 .30			Cadmium					
			330 2.385 .26			330 2.385 .26			ICP					
			106 2.355 .09			106 2.355 .09			419 428.50 1.54					
			Avg 2.338			Avg 2.338			102 428.43 1.53					
			389 2.325 -.15			389 2.325 -.15			096 408.00 .77					
			Meth: 165.99 PCT			Meth: 165.XX PCT			324 392.00 .29					
			Acid Soluble Boron			Acid Soluble Boron			Avg 387.19					
			<u>Other</u>			<u>Other</u>			247 381.00 -.23					
			422 2.743 2.12			422 2.743 2.12			106 380.50 -.28					
			354 2.523 R 1.32			354 2.523 R 1.32			Meth: 181.30 PPM					
			042 2.578 X 1.28			042 2.578 X 1.28			Cadmium					
			043 2.555 1.15			043 2.555 1.15			ICP					
			361 2.500 .85			361 2.500 .85			419 428.50 1.54					
			324 2.465 .66			324 2.465 .66			102 428.43 1.53					
			291 2.381 .30			291 2.381 .30			096 408.00 .77					

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 190.99 PCT			Meth: 191.XX PPM			Meth: 202.XX PPM			Meth: 221.30 PCT			Meth: 221.XX PCT		
<u>Water Soluble Chlori</u>			<u>Chromium</u>			<u>Acid Soluble Cobalt</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Copper</u>		
009	0.51	.71	419	376.00	.36	368	885.00 s	24.07	102	2.5348 S	3.49	102	2.5348 s	3.97
			291	357.45 R	.32	409	324.00	1.63	422	2.5140 S	3.28	422	2.5140 s	3.75
			377	367.50	.30	009	300.75	1.06	354	2.4405 S	2.93	354	2.4405 s	3.36
Meth: 190.XX PCT			023 348.00 X .12			136 297.50 .98			354 2.4405 S 2.93			368 2.4000 2.91		
<u>Water Soluble Chlori</u>			324 338.50 .03			377 292.50 .86			368 2.4000 2.51			057 2.2550 1.89		
102	1.05	1.29	Avg	334.89		096	288.00	.76	057	2.2550	1.58	292	2.1900	1.42
Avg	0.68		232	287.00	-.45	Avg	257.57		292	2.1900	1.15	377	2.1250	1.03
009	0.51	-.58	376	260.50	-.66	023	248.00 X	-.25	377	2.1250	.81	360	2.1450	1.02
422	0.47	-.71	247	242.00	-.82	419	245.50	-.30	360	2.1450	.77	233	2.0860 R	.92
			368	51.06	-2.51	102	237.54	-.49	361	2.1200	.60	390	2.1300	.91
Meth: 191.30 PPM			Meth: 202.00 PPM			291 256.77 R -.57			023 2.0400 .41			361 2.1200 .83		
<u>Chromium</u>			<u>Acid Soluble Cobalt</u>			324 233.00 -.60			131 2.0550 .40			177 2.1055 .75		
<u>ICP</u>			<u>AA</u>			247 223.60 -.83			027 2.0840 .35			027 2.0840 .57		
009	461.00	1.62	136	297.50	.71	232	204.00	-1.31	090	2.0650	.32	131	2.0550	.54
096	429.50	1.16				106	196.50	-1.50	389	2.0600	.20	023	2.0400	.50
102	385.66	.53	Meth: 202.30 PPM			Meth: 221.00 PCT			232 2.0482 .16			090 2.0650 .50		
291	357.45 R	.43	<u>Acid Soluble Cobalt</u>			<u>Acid Soluble Copper</u>			330 2.0450 .13			389 2.0600 .39		
419	376.00	.38	<u>ICP</u>			<u>Atomic Absorption</u>			106 2.0500 .12			232 2.0482 .32		
377	367.50	.29	368	885.00 s	27.86	233	2.0860	1.50	247	2.0370	.03	106	2.0500	.31
Avg	349.57		009	300.75	1.52	177	2.1055	1.39	Avg	2.0328		028	2.0450	.30
023	348.00 X	-.02	377	292.50	1.29	028	2.0450	.79	307	1.9775	-.42	330	2.0450	.30
324	338.50	-.16	096	288.00	1.17	351	2.0205	.61	376	1.9650	-.46	043	2.0150	.26
232	287.00	-.94	291	256.77 R	.71	043	2.0150	.59	419	1.9400	-.64	351	2.0205	.24
376	260.50	-1.29	023	248.00 X	.12	040	1.9860	.47	426	1.9350	-.67	247	2.0370	.22
247	242.00	-1.56	Avg	246.94		055	1.9950	.32	095	1.9300	-.71	Avg	2.0079	
368	51.06 s	-4.33	419	245.50	-.08	105	1.9950	.30	324	1.9150	-.81	105	1.9950	-.12
Meth: 191.99 PPM			102 237.54 -.27			262 1.9900 X .26			009 1.9068 -.87			055 1.9950 -.15		
<u>Chromium</u>			324 233.00 -.40			Avg 1.9652			291 1.8150 -1.50			262 1.9900 X -.15		
<u>Other</u>			247 223.60 -.66			029 1.9605 -.17			042 1.6830 -2.39			307 1.9775 -.30		
409	472.00	.71	232	204.00	-1.21	234	1.9450	-.20	Meth: 221.99 PCT			376 1.9650 -.32		
Meth: 191.XX PPM			106 196.50 -1.43			414 1.8900 -.74			<u>Acid Soluble Copper</u>			040 1.9860 -.36		
<u>Chromium</u>			Meth: 202.99 PPM			095 1.8850 -.79			<u>Other</u>			029 1.9605 -.37		
409	472.00	1.21	<u>Acid Soluble Cobalt</u>			260 1.8000 -1.65			390 2.1300 .71			234 1.9450 -.47		
009	461.00	1.12	<u>Other</u>			296 1.7600 -2.13			Avg 2.1300			419 1.9400 -.51		
096	429.50	.84	409	324.00	.71				420 0.9105 S -86.23			426 1.9350 -.55		
102	385.66	.45										095 1.9300 -.60		
* X=Excluded from lab performance			S/s=Screened Outlier			R=Duplicate Range too large			A=Analysis beyond 3-s limits			324 1.9150 -.70		
												009 1.9068 -.76		

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 221.XX PCT			Meth: 241.30 PCT			Meth: 241.XX PCT			Meth: 251.30 PPM			Meth: 261.00 PCT		
<u>Acid Soluble Copper</u>			<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>			Lead			<u>Acid Soluble Mangane</u>		
414	1.8900	-.88	<u>ICP</u>			023	13.54	.48	<u>ICP</u>			<u>AA</u>		
095	1.8850	-.92	Avg	12.91		324	13.49	.45	419	2123.0	1.84	260	7.025 s	4.12
291	1.8150	-1.45	360	12.88	-.07	027	13.33	.35	023	2002.0 X	1.06	177	6.328	1.14
260	1.8000	-1.57	095	12.48	-.27	055	13.27	.31	102	1975.0	.98	028	6.305	1.06
296	1.7600	-1.93	106	12.43	-.30	009	13.23	.31	324	1883.0	.22	105	6.265	1.05
042	1.6830	-2.41	377	12.36	-.34	105	13.02	.24	247	1858.5	.04	351	6.228	.73
420	0.9105 s	-8.13	426	12.31	-.37	029	13.07	.20	Avg	1852.0		055	6.100	.35
			102	12.46	-.42	360	12.88	.11	043	1752.0	-.71	392	6.075	.14
			131	11.62	-.80	177	12.87	.09	106	1735.0	-.80	Avg	6.053	
Meth: 241.00 PCT			096			Avg			009			043		
<u>Acid Soluble Iron</u>			090			040			232			257		
<u>Atomic Absorption</u>			291			043			291			262		
260	15.42	2.42	389	11.00	-1.17	028	12.50	-.15	368	1465.9 R	-2.86	296	5.750	-1.28
095	14.00	.99	232	10.30	-1.60	095	12.48	-.15				414	5.620	-1.92
105	13.02	.29	307	5.77 s	-4.42	106	12.43	-.20	Meth: 251.99 PPM					
055	13.27	.26	292	3.96 s	-5.50	377	12.36	-.22	Lead					
029	13.07	.10	393	0.17 s	-7.83	426	12.31	-.25	<u>Other</u>					
Avg	13.01					102	12.46	-.34	409	2145.0	.87	<u>AA</u>		
177	12.87	-.14	Meth: 241.99 PCT			296	11.83	-.55	Avg	1973.0		029	6.410	1.26
040	12.68	-.33	<u>Acid Soluble Iron</u>			351	11.76	-.58	376	1801.0	-.87	Avg	6.253	
043	12.64	-.37	<u>Other</u>			131	11.62	-.67	Meth: 261.11 PCT					
028	12.50	-.51	234	14.06	.86	096	11.39	-.79	<u>Acid Soluble Mangane</u>					
296	11.83	-1.19	Avg	11.14		090	11.41	-.80	040					
351	11.76	-1.25	390	8.22	-.87	291	11.39	-.80	095					
262	9.39 s	-3.61	420	2.80 S	-2.47	389	11.00	-1.02	6.120					
			362	1.94 S	-2.72	232	10.30	-1.43	-.92					
Meth: 241.30 PCT			Meth: 241.XX PCT			Meth: 251.XX PPM			Meth: 251.00 PPM			Meth: 261.30 PCT		
<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>			<u>Lead</u>			<u>Atomic Absorption</u>			<u>Acid Soluble Mangane</u>		
<u>ICP</u>			422			390			409			330		
422	16.70	2.33	042	16.48	2.19	307	5.77 s	-4.13	419	2123.0	1.67	102	7.550	1.50
042	16.48	2.19	057	14.98	1.27	292	3.96 s	-5.17	023	2002.0 X	.93	057	7.335	1.17
057	14.98	1.27	354	13.57 R	1.04	420	2.80 s	-5.84	102	1975.0	.87	361	7.240	1.03
354	13.57 R	1.04	260	15.42	1.58	362	1.94 s	-6.35	376	1801.0	-.41	354	7.116	.85
330	13.70	.49	057	14.98	1.32	393	0.17 s	-7.39	136	1775.0	-.59	232	6.886	.55
361	13.62	.44	354	13.57 R	1.04				043	1752.0	-.76	090	6.835	.47
023	13.54	.39	234	14.06	.78	Meth: 251.00 PPM			106	1735.0	-.84	009	6.762	.38
324	13.49	.36	095	14.00	.74	Lead			009	1716.0	-.96	027	6.576	.08
027	13.33	.26	330	13.70	.57	<u>Atomic Absorption</u>			232	1713.0	-1.01	Avg	6.439	
009	13.23	.22	361	13.62	.52	136			291	1763.1	-1.04	291	6.471	-.23
* X=Excluded from lab performance			S/s=Screened Outlier			R=Duplicate Range too large			368			377		
									1465.9 R			6.310		
									-2.80			-.30		
									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: 291.XX PPM			Meth: 311.00 PCT			Meth: 321.00 PCT			Meth: 321.99 PCT			Meth: 321.XX PCT		
<u>Nickel</u>			<u>Sodium</u>			<u>Acid Soluble Zinc</u>			<u>Acid Soluble Zinc</u>			<u>Acid Soluble Zinc</u>		
023	2196.0 X	.23	<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			<u>Other</u>			330	8.100	-.56
247	2196.5	.21	193	1.61 S	.00	105	8.192	-.70	390	8.420	.85	042	8.033	-.57
Avg	2155.1		Meth: 311.99 PCT			Meth: 321.30 PCT			Meth: 321.XX PCT			376	7.950	-.73
232	1992.0	-.84	<u>Sodium</u>			<u>Acid Soluble Zinc</u>			<u>Acid Soluble Zinc</u>			296	7.845	-.93
291	2088.9 R	-.85	<u>Other</u>			<u>ICP</u>						419	7.710	-1.17
106	1870.5	-1.47	232	1.31	.81	422	11.635 s	5.32	422	11.635 s	6.12	095	7.685	-1.22
376	1695.0	-2.37	422	1.32	.66	102	9.875	2.43	029	11.547 s	5.97	262	7.090 X	-2.35
368	1297.7 s	-4.67	307	1.27	.47	422	11.635 s	5.32	102	9.875	2.86	292	6.995	-2.50
Meth: 301.30 PPM			102	1.29	.38	102	9.875	2.43	029	11.547 s	5.97	234	4.300 s	-7.51
<u>Selenium</u>			Avg	1.26		354	9.325 R	1.64	102	9.875	2.86	368	4.170 s	-7.75
<u>ICP</u>			009	1.10	-1.74	426	8.980	.94	354	9.325 R	1.96	420	4.055 s	-7.96
409	383.50	1.09	Meth: 311.XX PCT			090	8.920	.87	426	8.980	1.19	393	1.560 s	-12.60
232	306.50 R	.65	<u>Sodium</u>			361	8.915	.83	090	8.920	1.10	232	0.825 s	-13.96
106	303.50	.63	193	1.61 s	4.26	377	8.845	.72	361	8.915	1.07	Meth: 325.30 PCT		
247	292.55	.56	232	1.31	.81	291	8.736	.54	377	8.845	.94	<u>Water Soluble Zinc</u>		
Avg	195.94		422	1.32	.66	027	8.710	.50	291	8.736	.74	<u>ICP</u>		
368	0.10	-1.14	307	1.27	.47	389	8.650	.40	028	8.680	.71	247	8.489	-.71
291	0.06	-1.14	102	1.29	.38	023	8.455	.26	027	8.710	.69			
Meth: 301.99 PPM			Avg	1.26		009	8.512	.17	389	8.650	.58			
<u>Selenium</u>			009	1.10	-1.74	360	8.490	.14	055	8.450 R	.56			
<u>Other</u>			Meth: 321.00 PCT			Avg	8.409		023	8.455	.35			
296	315.00	.71	<u>Acid Soluble Zinc</u>			324	8.335	-.13	351	8.521	.33			
Meth: 301.XX PPM			<u>Atomic Absorption</u>			131	8.200	-.35	009	8.512	.32			
<u>Selenium</u>			029	11.547 s	13.76	106	8.095	-.54	360	8.490	.28			
409	383.50	1.03	028	8.680	1.66	330	8.100	-.59	390	8.420	.18			
296	315.00	.61	055	8.450	1.29	042	8.033	-.62	257	8.420	.17			
232	306.50 R	.56	351	8.521	.80	376	7.950	-.76	043	8.410	.15			
106	303.50	.54	257	8.420	.42	419	7.710	-1.15	392	8.380	.10			
247	292.55	.47	043	8.410	.36	095	7.685	-1.19	Avg	8.342				
Avg	215.79		292	6.995	-2.33	292	6.995	-2.33	324	8.335	-.03			
368	0.10	-1.33	043	8.410	.36	368	4.170 s	-6.99	095	8.255	-.16			
291	0.06	-1.33	392	8.380	.26	393	1.560 s	-11.29	177	8.251	-.17			
			Avg	8.335		232	0.825 s	-12.50	040	8.302	-.27			
			095	8.255	-.35				131	8.200	-.28			
			177	8.251	-.37				414	8.320	-.30			
			040	8.302	-.62				105	8.192	-.31			
			414	8.320	-.69				106	8.095	-.48			

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

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
001.99	2	0.00	1.16	0.29	165.99	18	0.054	0.989	0.293
001.XX	2	0.00	1.16	0.29	165.XX	31	- 0.420	3.113	0.279
005.XX	2	0.00	0.16	0.86	171.XX	2	0.000	1.213	0.121
007.00	2	0.00	1.22	0.00	181.30	12	- 0.39	1.30	0.53
007.99	2	0.00	0.61	0.75	181.XX	14	- 0.37	1.33	0.53
007.XX	4	0.00	1.08	0.00	190.00	2	0.00	1.22	0.02
008.10	3	0.00	1.10	0.14	190.XX	3	0.00	1.12	0.02
008.XX	3	0.00	1.10	0.14	191.30	12	- 0.35	1.56	0.15
010.11	5	0.00	0.88	0.54	191.XX	13	0.02	0.98	0.09
010.12	2	0.00	1.19	0.20	202.30	12	1.52	5.27	6.15
010.60	45	- 1.94	12.71	12.34	202.XX	14	1.10	4.22	4.95
010.99	7	- 0.40	1.42	0.19	221.00	15	0.0000	0.9372	0.3832
010.XX	58	- 1.19	8.48	8.21	221.30	27	0.3515	1.3759	0.3019
020.20	2	603.73	853.80	1.03	221.99	2	- 43.11	60.975	0.5006
020.50	4	0.00	1.08	0.07	221.XX	43	0.0942	1.8349	0.3129
020.XX	6	13.25	32.46	0.07	241.00	12	- 0.30	1.42	0.14
041.60	2	0.00	1.12	0.36	241.30	25	- 0.69	2.23	0.24
041.XX	3	- 0.09	1.27	0.19	241.99	4	- 1.30	1.66	0.04
050.00	2	0.00	1.21	0.13	241.XX	40	- 0.72	2.18	0.20
050.50	4	3.07	6.20	0.33	251.30	11	- 0.24	1.20	0.49
050.51	3	0.00	1.11	0.07	251.99	2	0.00	1.22	0.02
050.XX	11	0.18	1.38	0.08	251.XX	14	- 0.18	1.16	0.42
060.00	3	0.00	1.11	0.12	261.00	12	0.337	1.482	0.404
060.XX	3	0.00	1.11	0.12	261.11	3	0.000	1.021	0.371
101.30	8	0.00	1.03	0.10	261.30	24	- 0.771	2.427	0.474
101.XX	10	- 0.46	1.75	0.10	261.31	4	0.000	0.813	0.616
121.00	15	0.43	1.64	0.44	261.99	2	0.000	1.210	0.134
121.30	27	0.35	3.36	0.59	261.XX	45	- 0.547	2.501	0.472
121.99	3	- 34.53	31.91	0.84	281.XX	3	0.000	1.118	0.008
121.XX	44	- 0.22	3.33	1.08	289.30	13	0.10	1.04	0.12
131.30	2	0.00	1.22	0.07	289.XX	15	0.08	1.03	0.11
131.XX	3	0.00	1.12	0.07	291.30	12	- 0.36	1.49	0.49
144.01	12	0.00	1.00	0.20	291.XX	14	- 0.34	1.50	0.48
144.02	2	0.00	1.22	0.09	301.30	6	0.11	0.98	0.03
144.99	19	- 0.20	1.29	0.53	301.XX	7	0.08	0.98	0.03
144.XX	33	- 0.24	1.29	0.47	311.99	5	0.00	0.99	0.34
151.30	10	- 0.27	1.26	0.47	311.XX	6	0.64	1.81	0.81
151.XX	12	- 0.24	1.25	0.43	321.00	14	- 0.252	6.158	0.559
165.00	13	- 1.031	4.568	0.255	321.30	25	- 0.958	3.869	0.175

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
321.99	3	- 1.577	2.862	0.134					
321.XX	41	- 0.854	3.907	0.231					