

MAGRUDER - Fertilizer Check Sample No. - 200302 Grade 14-14-14

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

Method	AOAC Ref.	Method Code	No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups	No. of Labs	Grand Avg.	Std. Dev.	Average Range of Dups
Ammoniacal Nitrogen, MgO Distillation .	920.03	001.10	8	4.01	0.21	0.05	8	4.01	0.21	0.05
Ammoniacal Nitrogen, Other		001.99	7	4.13	0.34	0.13	7	4.13	0.34	0.13
Method Group 001.XX PCT			15	4.07	0.28	0.09	14	4.08	0.28	0.07
Nitrate Nitrogen, Other		002.99	1	9.35	0.00	0.00	1	9.35	0.00	0.00
Water Insoluble Nitrogen, Meth I	945.01	003.10	2	2.69	0.98	0.11	2	2.69	0.98	0.11
Nitrogen From Urea, Urease (as N)	959.03	005.00	1	3.74	0.25	0.35	1	3.74	0.25	0.35
Percent Urea, Urease (as Urea)	959.03	007.00	1	2.21	0.12	0.17	1	2.21	0.12	0.17
Ammon & Nitrate N, Devarda	892.01	009.10	4	5.07	0.33	0.13	4	5.07	0.33	0.13
Ammon & Nitrate N, Other		009.99	1	3.90	0.22	0.31	1	3.90	0.22	0.31
Method Group 009.XX PCT			5	4.83	0.58	0.16	5	4.83	0.58	0.16
Total Nitrogen, Modified Comprehensive	978.02	010.11	9	15.27	0.21	0.08	9	15.27	0.21	0.08
Total Nitrogen, Salicylic	955.04D	010.12	6	15.32	0.18	0.09	6	15.32	0.18	0.09
Total Nitrogen, Combustion		010.60	48	15.49	0.17	0.10	45	15.48	0.16	0.08
Total Nitrogen, Other		010.99	2	15.58	0.35	0.14	2	15.58	0.35	0.14
Method Group 010.XX PCT			65	15.45	0.20	0.10	62	15.44	0.20	0.08
Total Phosphate, Grav Quimociac	962.02	020.10	8	13.34	0.20	0.09	8	13.34	0.20	0.09
Total Phosphate, Spectrometric	958.01	020.20	22	13.39	0.28	0.10	21	13.38	0.28	0.09
Total Phosphate, Alka Quimociac	969.02	020.30	1	13.39	0.03	0.04	1	13.39	0.03	0.04
Total Phosphate, Automated	978.01	020.40	9	13.30	0.21	0.07	9	13.30	0.21	0.07
Total Phosphate, ICP		020.50	1	13.51	0.22	0.31	1	13.51	0.22	0.31
Method Group 020.XX PCT			41	13.36	0.25	0.10	39	13.34	0.22	0.09
Insoluble Phosphate, Grav Quimociac ...	963.03C	030.10	3	0.05	0.04	0.01	3	0.05	0.04	0.01
Insoluble Phosphate, Spectrometric	963.03C	030.20	1	0.06	0.01	0.01	1	0.06	0.01	0.01
Insoluble Phosphate, Automated	978.01	030.40	4	0.08	0.04	0.02	4	0.08	0.04	0.02
Method Group 030.XX PCT			8	0.06	0.04	0.02	8	0.06	0.04	0.02
InDir Available Phosphate, Grav Quim ..	960.02	040.10	2	13.41	0.03	0.03	2	13.41	0.03	0.03
InDir Available Phosphate, Spectrometri	960.02	040.20	3	13.16	0.52	0.20	3	13.16	0.52	0.20
InDir Available Phosphate, Automated ..	960.02	040.40	4	13.19	0.18	0.06	4	13.19	0.18	0.06
InDir Available Phosphate, Other		040.99	1	13.30	0.04	0.06	1	13.30	0.04	0.06
Method Group 040.XX PCT			10	13.24	0.30	0.10	9	13.20	0.29	0.06
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	14	13.30	0.14	0.05	13	13.30	0.14	0.04
Dir Available Phosphate, Spectrometric	960.03D	041.20	2	12.70	0.09	0.08	2	12.70	0.09	0.08
Dir Available Phosphate, Alka Quim	960.03C	041.30	1	13.13	0.00	0.00	1	13.13	0.00	0.00
Dir Available Phosphate, Automated	978.01	041.40	4	13.21	0.22	0.04	4	13.21	0.22	0.04
Dir Available Phosphate, ICP		041.50	5	13.23	0.17	0.05	5	13.23	0.17	0.05
Dir Available Phosphate, EDTA Extract .	993.01	041.60	10	13.09	0.24	0.04	10	13.09	0.24	0.04
Dir Available Phosphate, Other		041.99	1	13.29	0.02	0.03	1	13.29	0.02	0.03
Method Group 041.XX PCT			37	13.18	0.23	0.05	36	13.18	0.23	0.04
Water Soluble Phosphate, Spectrometric	970.01	048.20	4	9.62	0.29	0.18	4	9.62	0.29	0.18

MAGRUDER - Fertilizer Check Sample No. - 200302 Grade 14-14-14

- Pass 1 Results for 80 Labs - - Pass 2 Results for 80 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
Water Soluble Phosphate, Other		048.99	1	9.34	0.04	0.05	1	9.34	0.04	0.05
Method Group 048.XX PCT			5	9.56	0.28	0.16	4	9.49	0.22	0.06
Soluble Potash, STPB Oxalate	958.02	050.00	21	14.70	0.25	0.09	20	14.70	0.24	0.07
Soluble Potash, STPB Citrate	969.04	050.10	1	15.04	0.15	0.21	1	15.04	0.15	0.21
Soluble Potash, AA (Oxalate)		050.30	7	14.60	0.35	0.11	9	14.43	0.44	0.11
Soluble Potash, ICP (Oxalate)		050.50	6	14.62	0.23	0.12	6	14.62	0.23	0.12
Soluble Potash, ICP (Citrate)		050.51	6	14.66	0.19	0.09	6	14.66	0.19	0.09
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	7	14.88	0.21	0.13	7	14.88	0.21	0.13
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	7	14.68	0.12	0.05	7	14.68	0.12	0.05
Soluble Potash, Other		050.99	10	14.54	0.27	0.13	10	14.54	0.27	0.13
Method Group 050.XX PCT			65	14.68	0.26	0.10	63	14.67	0.26	0.09
Free Water, Vacuum Oven	965.08B	060.00	7	1.16	0.12	0.05	7	1.16	0.12	0.05
Acid Soluble Calcium, AA	945.04	101.00	1	0.48	0.01	0.02	1	0.48	0.01	0.02
Acid Soluble Calcium, ICP		101.30	6	0.46	0.01	0.01	6	0.46	0.01	0.01
Method Group 101.XX PCT			7	0.46	0.01	0.01	7	0.46	0.01	0.01
Acid Soluble Magnesium, AA	984.01	121.00	18	1.17	0.04	0.02	18	1.17	0.04	0.02
Acid Soluble Magnesium, ICP		121.30	20	1.16	0.08	0.02	20	1.15	0.09	0.01
Acid Soluble Magnesium, Other		121.99	1	1.17	0.00	0.00	1	1.17	0.00	0.00
Method Group 121.XX PCT			40	1.17	0.07	0.02	38	1.17	0.06	0.02
Water Soluble Magnesium, AA		131.00	3	0.64	0.12	0.09	3	0.64	0.12	0.09
Water Soluble Magnesium, ICP		131.30	1	0.64	0.01	0.01	1	0.64	0.01	0.01
Water Soluble Magnesium, Other		131.99	1	2.48	0.04	0.06	1	2.48	0.04	0.06
Method Group 131.XX PCT			5	1.01	0.78	0.07	5	1.01	0.78	0.07
Sulfur, Gravimetric	980.02a	144.01	13	7.81	0.18	0.08	13	7.81	0.18	0.08
Sulfur, Gravimetric	980.02b	144.02	1	7.15	0.02	0.03	1	7.15	0.02	0.03
Sulfur, Turbidimetric	63.845	144.50	1	7.69	0.08	0.12	1	7.69	0.08	0.12
Sulfur, Other		144.99	15	7.71	0.34	0.11	14	7.71	0.35	0.08
Method Group 144.XX PCT			32	7.70	0.35	0.16	30	7.74	0.29	0.09
Arsenic, ICP		151.30	4	4.09	2.61	0.44	4	4.09	2.61	0.44
Arsenic, Other		151.99	3	3.06	0.11	0.03	3	3.06	0.11	0.03
Method Group 151.XX PPM			7	3.65	1.99	0.26	6	3.68	2.14	0.12
Acid Soluble Boron, Spectrometric	982.01	165.00	1	41.900	0.424	0.600	1	41.900	0.424	0.600
Acid Soluble Boron, Other		165.99	3	36.353	34.009	4.973	3	36.353	34.009	4.973
Method Group 165.XX PCT			4	37.740	28.858	3.880	4	37.740	28.858	3.880
Cadmium, Atomic Absorption		181.00	5	2.22	0.47	0.28	4	2.15	0.43	0.10
Cadmium, ICP		181.30	9	2.55	0.57	0.13	9	2.55	0.57	0.13
Cadmium, Other		181.99	1	2.00	0.00	0.00	1	2.00	0.00	0.00
Method Group 181.XX PPM			15	2.40	0.54	0.17	14	2.39	0.55	0.11
Water Soluble Chlorine, Other		190.99	1	1.49	0.00	0.00	1	1.49	0.00	0.00

MAGRUDER - Fertilizer Check Sample No. - 200302 Grade 14-14-14

- Pass 1 Results for 80 Labs - - Pass 2 Results for 80 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
Chromium, Atomic Absorption		191.00	2	48.25	8.85	3.50	2	48.25	8.85	3.50
Chromium, ICP		191.30	10	54.32	7.54	1.82	10	54.32	7.54	1.82
Method Group 191.XX PPM			12	53.31	7.90	2.10	11	53.11	8.17	1.65
Acid Soluble Cobalt, AA		202.00	2	7.75	1.62	0.90	2	7.75	1.62	0.90
Acid Soluble Cobalt, ICP	965.11	202.30	11	6.80	1.24	0.43	10	6.61	1.08	0.28
Acid Soluble Cobalt, Other		202.99	1	9.00	0.00	0.00	1	9.00	0.00	0.00
Method Group 202.XX PPM			15	6.95	1.57	0.77	14	7.09	1.37	0.47
Acid Soluble Copper, Atomic Absorption	975.01	221.00	7	0.003	0.000	0.000	7	0.003	0.000	0.000
Acid Soluble Copper, ICP		221.30	13	0.003	0.000	0.000	13	0.003	0.000	0.000
Acid Soluble Copper, Other		221.99	2	0.003	0.000	0.000	2	0.003	0.000	0.000
Method Group 221.XX PCT			22	0.003	0.000	0.000	21	0.003	0.000	0.000
Acid Soluble Iron, Atomic Absorption	980.01	241.00	15	1.38	0.15	0.05	14	1.38	0.15	0.03
Acid Soluble Iron, ICP		241.30	22	1.38	0.14	0.05	21	1.37	0.14	0.04
Acid Soluble Iron, Other		241.99	4	1.42	0.15	0.10	4	1.42	0.15	0.10
Method Group 241.XX PCT			41	1.38	0.14	0.05	38	1.38	0.14	0.04
Lead, Atomic Absorption		251.00	2	6.33	1.32	0.72	2	6.33	1.32	0.72
Lead, ICP		251.30	8	6.31	1.25	0.32	8	6.31	1.25	0.32
Lead, Other		251.99	2	5.91	0.13	0.10	2	5.91	0.13	0.10
Method Group 251.XX PPM			12	6.24	1.13	0.35	12	6.24	1.13	0.35
Acid Soluble Manganese, AA	972.02a	261.00	15	0.426	0.020	0.010	15	0.426	0.020	0.010
Acid Soluble Manganese, AA	972.02b	261.11	2	0.414	0.011	0.013	2	0.414	0.011	0.013
Acid Soluble Manganese, ICP	972.02a	261.30	20	0.422	0.039	0.011	18	0.419	0.039	0.006
Acid Soluble Manganese, ICP	972.02b	261.31	1	0.432	0.006	0.009	1	0.432	0.006	0.009
Acid Soluble Manganese, Other		261.99	3	0.449	0.048	0.013	3	0.449	0.048	0.013
Method Group 261.XX PCT			42	0.423	0.035	0.011	41	0.423	0.034	0.010
Water Soluble Manganese, Atomic Abs	972.03	271.00	2	0.231	0.015	0.004	2	0.231	0.015	0.004
Water Soluble Manganese, ICP	972.03	271.30	1	0.393	0.000	0.001	1	0.393	0.000	0.001
Method Group 271.XX PCT			3	0.285	0.084	0.003	3	0.285	0.084	0.003
Mercury, ICP		281.30	2	11.64	9.97	0.86	2	11.64	9.97	0.86
Mercury, Other		281.99	1	0.02	0.00	0.00	1	0.02	0.00	0.00
Method Group 281.XX PPM			3	7.76	9.78	0.57	3	7.76	9.78	0.57
Molybdenum, ICP		289.30	7	3.76	0.75	0.43	6	3.85	0.71	0.25
Molybdenum, Other		289.99	3	4.35	1.18	0.97	3	4.35	1.18	0.97
Method Group 289.XX PPM			10	3.94	0.91	0.59	10	3.94	0.91	0.59
Nickel, Atomic Absorption		291.00	2	17.63	1.89	0.25	2	17.63	1.89	0.25
Nickel, ICP		291.30	8	15.95	4.01	1.71	8	15.95	4.01	1.71
Nickel, Other		291.99	2	19.35	2.07	1.00	2	19.35	2.07	1.00
Method Group 291.XX PPM			12	16.79	3.64	1.35	11	17.03	3.63	0.99
Selenium, ICP		301.30	1	1.00	0.00	0.00	1	1.00	0.00	0.00

MAGRUDER - Fertilizer Check Sample No. - 200302 Grade 14-14-14

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

<u>Method</u>	<u>AOAC Ref.</u>	<u>Method Code</u>	<u>No. of Labs</u>	<u>Grand Avq.</u>	<u>Std. Dev.</u>	<u>Average Range of Dups</u>	<u>No. of Labs</u>	<u>Grand Avq.</u>	<u>Std. Dev.</u>	<u>Average Range of Dups</u>
Selenium, Other		301.99	3	0.46	0.43	0.00	3	0.46	0.43	0.00
Method Group 301.XX PPM			4	0.59	0.44	0.00	3	0.75	0.39	0.00
Sodium, Atomic Absorption	983.04	311.00	1	0.20	0.00	0.00	1	0.20	0.00	0.00
Sodium, Flame Photometric	974.01	311.30	1	0.18	0.00	0.00	1	0.18	0.00	0.00
Sodium, Other		311.99	5	0.20	0.03	0.01	5	0.20	0.03	0.01
Method Group 311.XX PCT			7	0.20	0.02	0.01	6	0.19	0.01	0.00
Acid Soluble Zinc, Atomic Absorption ..	975.02	321.00	8	0.014	0.001	0.000	8	0.014	0.001	0.000
Acid Soluble Zinc, ICP		321.30	17	0.014	0.002	0.001	17	0.014	0.002	0.001
Acid Soluble Zinc, Other		321.99	2	0.014	0.002	0.000	2	0.014	0.002	0.000
Method Group 321.XX PCT			27	0.014	0.002	0.001	26	0.014	0.001	0.001
Water Soluble Zinc, Atomic Absorption .		325.00	1	0.006	0.000	0.000	1	0.006	0.000	0.000
Water Soluble Zinc, ICP		325.30	1	0.215	0.007	0.010	1	0.215	0.007	0.010
Method Group 325.XX PCT			2	0.110	0.121	0.005	2	0.110	0.121	0.005

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 001.10 PCT			Meth: 001.XX PCT			Meth: 009.99 PCT			Meth: 010.60 PCT			Meth: 010.60 PCT		
<u>Ammoniacal Nitrogen</u>			<u>Ammoniacal Nitrogen</u>			<u>Ammon & Nitrate N</u>			<u>Total Nitrogen</u>			<u>Total Nitrogen</u>		
<u>MgO Distillation</u>			<u>Other</u>			<u>Combustion</u>			<u>Combustion</u>			<u>Combustion</u>		
288	4.34	1.59	289	3.93	-.60	105	3.90	.71	292	16.82 s	8.20	106	15.48	-.61
220	4.21	.98	028	3.87	-.78				073	16.32 s	5.55	247	15.42	-.66
040	4.05	.30	324	3.82	-.95	Meth: 009.XX PCT			393	15.96	2.89	023	15.43	-.69
309	4.05	.30	247	3.87 R	-.98	<u>Ammon & Nitrate N</u>			409	15.87	2.41	040	15.39	-.83
029	4.07	.28	394	3.80	-1.04	257	5.52	1.19	360	15.86	2.37	041	15.33	-.93
Avg	4.01		262	3.70	-1.39	258	5.15	.61	330	15.70 R	1.81	324	15.39	-.97
028	3.87	-.72	372	2.94 s	-4.08	392	4.85	.09	007	15.53 R	1.80	027	15.30	-1.14
324	3.82	-.94	Meth: 002.99 PCT			Avg			402	15.67 R	1.55	389	15.29	-1.17
262	3.70	-1.54	<u>Nitrate Nitrogen</u>			129	4.75	-.17	275	15.70	1.43	086	15.30	-1.19
372	2.94 s	-5.19	<u>Other</u>			105	3.90	-1.64	024	15.64	.97	034	15.28	-1.23
			247	9.35	.00	Meth: 010.11 PCT			042	15.62	.86	394	15.29	-1.24
Meth: 001.99 PCT			Meth: 003.10 PCT			Total Nitrogen			028	15.61	.80	262	15.30	-1.26
<u>Ammoniacal Nitrogen</u>			<u>Water Insoluble Nitr</u>			<u>Modified Comprehensi</u>			177	15.60	.73	049	15.27	-1.29
<u>Other</u>			<u>Meth I</u>			288	15.61	1.66	037	15.56	.60	095	15.22	-1.61
418	5.28 S	3.35	023	3.54	.86	090	15.50	1.16	372	15.57	.52	Meth: 010.99 PCT		
363	4.79	1.94	Avg	2.69		105	15.34	.38	025	15.55	.44	<u>Total Nitrogen</u>		
193	4.31	.53	220	1.84	-.87	029	15.33	.32	009	15.49	.43	<u>Other</u>		
409	4.23	.28	Meth: 005.00 PCT			114	15.30	.15	406	15.55	.42	354	15.87	.91
Avg	4.13		<u>Nitrogen From Urea</u>			Avg	15.27		096	15.53	.38	Avg	15.58	
105	4.02 X	-.34	<u>Urease (as N)</u>			309	15.20	-.33	325	15.54	.36	177	15.30	-.82
289	3.93	-.63	220	3.74	-.71	211	15.06	-1.02	055	15.51	.35	105	13.46 S	-6.14
247	3.87	-.93	Meth: 007.00 PCT			405	15.06	-1.08	296	15.50	.33	Meth: 010.XX PCT		
394	3.80	-1.00	<u>Percent Urea</u>			363	15.02	-1.34	131	15.53	.27	<u>Total Nitrogen</u>		
Meth: 001.XX PCT			<u>Urease (as Urea)</u>			322	14.28 s	-4.79	043	15.51	.18	292	16.82 s	7.02
<u>Ammoniacal Nitrogen</u>			247	2.21	.71	Meth: 010.12 PCT			029	15.49	.09	073	16.32 s	4.81
418	5.28 s	4.26	Meth: 009.10 PCT			<u>Total Nitrogen</u>			Avg	15.48		393	15.96	2.62
363	4.79	2.54	<u>Ammon & Nitrate N</u>			<u>Salicylic</u>			142	15.46	-.14	232	15.46	-.28
288	4.34	.92	<u>Devarda</u>			102	15.62	1.66	070	15.48	-.24	354	15.87	2.29
193	4.31	.82	257	5.52	1.36	416	15.43	.64	232	15.46	-.28	409	15.87	2.22
409	4.23	.51	258	5.15	.52	Avg	15.32		390	15.44	-.28	360	15.86	2.18
220	4.21	.47	Avg	5.07		185	15.31	-.41	381	15.44	-.30	330	15.70 R	1.67
Avg	4.08		392	4.85	-.67	351	15.23	-.50	233	15.43	-.32	007	15.53 R	1.54
029	4.07	-.06	129	4.75	-.97	397	15.20	-.86	234	15.43	-.32	402	15.67 R	1.46
309	4.05	-.22	* X=Excluded from lab performance			398	15.12	-1.09	157	15.46	-.33	275	15.70	1.39
105	4.02 X	-.23	S/s=Screened Outlier			R=Duplicate Range too large			220	15.43	-.34	024	15.64	1.03
			A=Analysis beyond 3-s limits						377	15.43	-.38	035	15.39	-.61
									Avg	15.48		102	15.62	.94

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: 020.40 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>		
042	15.62	.93	177	15.30	-.70	<u>Spectrometric</u>			<u>Automated</u>			232	13.37	.17
028	15.61	.88	114	15.30	-.73	309	13.70	1.22	193	13.24	-.41	247	13.35	.11
288	15.61	.87	027	15.30	-.73	220	13.60 R	1.08	105	13.19	-.56	292	13.36	.08
177	15.60	.82	389	15.29	-.75	418	13.61	.84	035	13.10	-.99	Avg	13.34	
037	15.56	.68	185	15.31	-.77	390	13.53	.64	409	13.01	-1.41	262	13.30	-.17
372	15.57	.65	086	15.30	-.78	406	13.53	.56				320	13.29	-.24
025	15.55	.58	034	15.28	-.80	392	13.53	.56	Meth: 020.50 PCT			372	13.28	-.30
406	15.55	.57	394	15.29	-.83	362	13.53	.55	<u>Total Phosphate</u>			313	13.26	-.39
106	15.48	.55	049	15.27	-.85	234	13.49	.52	<u>ICP</u>			324	13.28	-.49
325	15.54	.51	262	15.30	-.86	142	13.51	.47	330	14.55 S	4.77	257	13.23	-.49
096	15.53	.50	351	15.23	-1.07	363	13.49	.41	402	13.51	.71	193	13.24	-.53
090	15.50	.48	095	15.22	-1.12	Avg	13.38		Avg	13.51		129	13.23	-.64
055	15.51	.45	309	15.20	-1.20	232	13.37	-.08	389	11.60 S	-8.69	105	13.19	-.70
131	15.53	.44	397	15.20	-1.33	292	13.36	-.08				288	13.19	-.81
009	15.49	.44	398	15.12	-1.63	262	13.30	-.28	Meth: 020.XX PCT			035	13.10	-1.12
296	15.50	.41	211	15.06	-1.92	372	13.28	-.36	<u>Total Phosphate</u>			095	13.09	-1.30
043	15.51	.37	405	15.06	-1.95	324	13.28	-.48	330	14.55 s	5.52	157	13.04	-1.37
070	15.48	.30	363	15.02	-2.20	257	13.23	-.53	381	14.04 A	3.24	409	13.01	-1.53
157	15.46	.28	322	14.28 s	-5.85	129	13.23	-.62	042	13.75	1.89	420	12.98	-1.66
029	15.49	.25	105	13.46 s	-10.07	288	13.19	-.76	309	13.70	1.71	397	12.89	-2.04
232	15.46	.23				420	12.98	-1.45	220	13.60 R	1.50	258	12.86	-2.17
142	15.46	.12	Meth: 020.10 PCT			397	12.89	-1.76	105	13.60	1.33	389	11.60 s	-7.90
390	15.44	.10	<u>Total Phosphate</u>			258	12.86	-1.86	418	13.61	1.24			
Avg	15.44		<u>Grav Quimociac</u>						402	13.51	1.04	Meth: 030.10 PCT		
234	15.43	-.06	105	13.60	1.44	Meth: 020.30 PCT			390	13.53	.95	Insoluble Phosphate		
233	15.43	-.06	405	13.52	.88	<u>Total Phosphate</u>			406	13.53	.87	<u>Grav Quimociac</u>		
381	15.44	-.08	090	13.43	.46	<u>Alka Quimociac</u>			392	13.53	.87	405	0.10	1.25
416	15.43	-.08	300	13.39	.33	416	13.39	.71	362	13.53	.87	Avg	0.05	
220	15.43	-.11	114	13.38	.24	Meth: 020.40 PCT			405	13.52	.81	090	0.04	-.26
377	15.43	-.14	Avg	13.34		<u>Total Phosphate</u>			234	13.49	.80	320	0.02	-.93
035	15.39	-.29	313	13.26	-.42	<u>Automated</u>			142	13.51	.76	Meth: 030.20 PCT		
247	15.42	-.45	095	13.09	-1.40	042	13.75	2.11	363	13.49	.69	Insoluble Phosphate		
023	15.43	-.51	157	13.04	-1.47	096	13.44	.63	096	13.44	.46	<u>Spectrometric</u>		
105	15.34	-.52	Meth: 020.20 PCT			394	13.38	.38	090	13.43	.42	220	0.06	.71
041	15.33	-.55	<u>Total Phosphate</u>			247	13.35	.24	300	13.39	.30			
040	15.39	-.55	<u>Spectrometric</u>			Avg	13.30		416	13.39	.27			
029	15.33	-.55	381	14.04	2.44	320	13.29	-.11	394	13.38	.23			
324	15.39	-.70							114	13.38	.21			
* 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: 030.40 PCT			Meth: 040.20 PCT			Meth: 041.10 PCT			Meth: 041.50 PCT			Meth: 041.XX PCT		
<u>Insoluble Phosphate</u>			<u>InDir Available Phos</u>			<u>Dir Available Phosph</u>			<u>Dir Available Phosph</u>			<u>Dir Available Phosph</u>		
<u>Automated</u>			<u>Spectrometri</u>			<u>Grav Quimociac</u>			<u>ICP</u>			177	13.40	.94
193	0.13	1.42	363	12.52	-1.24	177	13.40	.73	360	13.44	1.22	325	13.39	.91
096	0.09	.33				009	13.33	.28	325	13.39	.94	043	13.39	.89
Avg	0.08		Meth: 040.40 PCT			102	13.33	.23	Avg	13.23		185	13.35 R	.85
247	0.05	-.78	<u>InDir Available Phos</u>			029	13.30	.08	070	13.20	-.16	102	13.33	.64
409	0.05	-.87	<u>Automated</u>			Avg	13.30		023	13.09	-.83	009	13.33	.64
			394	13.35	.90	131	13.28	-.14	007	13.03	-1.19	029	13.30	.52
Meth: 030.99 PCT			096	13.35	.87	028	13.29	-.22	393	11.52 S	-9.88	028	13.29	.49
<u>Insoluble Phosphate</u>			Avg	13.19		040	13.28	-.32				040	13.28	.47
<u>Other</u>			193	13.11	-.48	322	13.20	-.76	Meth: 041.60 PCT			220	13.29	.46
362	3.00 S	.00	409	12.96	-1.31	049	13.09	-1.54	<u>Dir Available Phosph</u>			351	13.28	.45
						211	13.02	-2.02	<u>EDTA Extract</u>			131	13.28	.43
Meth: 030.XX PCT			Meth: 040.99 PCT						028	13.43	1.41	025	13.20	.23
<u>Insoluble Phosphate</u>			<u>InDir Available Phos</u>			Meth: 041.20 PCT			043	13.39	1.23	322	13.20	.17
362	3.00 s	80.45	<u>Other</u>			<u>Dir Available Phosph</u>			351	13.28	.81	070	13.20	.08
193	0.13	1.80	247	13.30	-.71	<u>Spectrometric</u>			073	13.17	.32	Avg	13.18	
405	0.10	.93				362	12.77	.88	095	13.10	.19	073	13.17	-.07
096	0.09	.70	Meth: 040.XX PCT			Avg	12.70		024	13.12	.14	029	13.17	-.09
Avg	0.06		<u>InDir Available Phos</u>			106	12.63	-.85	Avg	13.09		260	13.13	-.22
220	0.06	-.29	220	13.55 R	1.35				377	13.04	-.21	024	13.12	-.27
247	0.05	-.48	289	13.43	.80	Meth: 041.30 PCT			397	12.86	-.93	023	13.09	-.41
409	0.05	-.55	405	13.42	.75	<u>Dir Available Phosph</u>			288	12.84	-1.03	095	13.10	-.42
090	0.04	-.67	090	13.39	.64	<u>Alka Quim</u>			177	12.65	-1.80	049	13.09	-.43
320	0.02	-1.36	394	13.35	.51	260	13.13	.00				377	13.04	-.62
			096	13.35	.49				Meth: 041.99 PCT			211	13.02	-.70
Meth: 040.10 PCT			247	13.30	.35	Meth: 041.40 PCT			<u>Dir Available Phosph</u>			007	13.03	-.70
<u>InDir Available Phos</u>			Avg	13.20		<u>Dir Available Phosph</u>			<u>Other</u>			027	12.94	-1.04
<u>Grav Quim</u>			193	13.11	-.33	<u>Automated</u>			220	13.29	.71	397	12.86	-1.39
405	13.42	1.12	409	12.96	-.84	131	13.52	1.41				288	12.84	-1.50
Avg	13.41		363	12.52	-2.33	Avg	13.21		Meth: 041.XX PCT			362	12.77	-1.81
090	13.39	-.50				029	13.17	-.20	<u>Dir Available Phosph</u>			177	12.65	-2.32
			Meth: 041.10 PCT			025	13.20	-.23	354	13.95 s	3.38	106	12.63	-2.40
Meth: 040.20 PCT			<u>Dir Available Phosph</u>			027	12.94	-1.19	105	13.55	1.61	393	11.52 s	-7.23
<u>InDir Available Phos</u>			<u>Grav Quimociac</u>						131	13.52	1.47			
<u>Spectrometri</u>			105	13.55	1.86	Meth: 041.50 PCT			360	13.44	1.12	Meth: 048.20 PCT		
220	13.55	.83	185	13.35 R	.84	<u>Dir Available Phosph</u>			028	13.43	1.08	<u>Water Soluble Phosph</u>		
289	13.43	.52	041	13.40	.78	<u>ICP</u>			041	13.40	.96	<u>Spectrometric</u>		
Avg	13.16		055	13.40	.76	354	13.95 S	4.23	055	13.40	.95	247	9.85	1.26
* 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: 048.20 PCT			Meth: 050.00 PCT			Meth: 050.50 PCT			Meth: 050.99 PCT			Meth: 050.XX PCT		
Water Soluble Phosph Spectrometric			Soluble Potash STPB Oxalate			Soluble Potash ICP (Oxalate)			Soluble Potash Other			Soluble Potash		
362	9.76	.52	372	14.55	-.66	157	14.28	-1.52	330	15.83 s	5.06	028	14.81	.57
Avg	9.62		211	14.49	-.87	096	12.45 S	-9.59	247	14.91	1.44	073	14.76	.50
363	9.61	-.04	129	14.48	-.93				177	14.85	1.15	023	14.77	.45
193	9.25	-1.28	418	14.63 R	-1.02	Meth: 050.51 PCT			325	14.75	.79	105	14.78	.43
			296	14.47	-1.07	Soluble Potash			394	14.60	.37	055	14.78	.43
Meth: 048.99 PCT			090 14.44 -1.08			ICP (Citrate)			042	14.55	.24	389	14.78	.42
Water Soluble Phosph Other			131 14.19 -2.09			377 14.90 1.22			027	14.55	.13	106	14.77	.41
275	9.34 X	.71	Meth: 050.10 PCT			023 14.77 .63			Avg	14.54		406	14.77	.37
			Soluble Potash			389 14.78 .59			232	14.48	-.27	028	14.76	.35
			STPB Citrate			Avg 14.66			260	14.47	-.45	025	14.76	.34
Meth: 048.XX PCT			322 15.04 .71			070 14.65 -.78			289	14.14	-1.53	325	14.75	.31
Water Soluble Phosph						007 14.49 -.93			360	14.12	-1.63	102	14.75	.29
247	9.85 R	2.06	Meth: 050.30 PCT			393 14.40 -1.35			275	12.80 s	-6.52	234	14.73	.21
362	9.76	1.24	Soluble Potash			Meth: 050.60 PCT			Meth: 050.XX PCT			350	14.68	.09
363	9.61	.54	AA (Oxalate)			Soluble Potash			Soluble Potash			Avg	14.67	
Avg	9.49		262 15.40 S 2.32			Flame (Oxalate)			330 15.83 s 4.82			029	14.66	-.06
275	9.34 X	-.67	381 15.06 1.43			390 15.30 1.98			262 15.40 s 3.08			392	14.66	-.12
193	9.25	-1.10	363 14.83 .91			114 14.98 .94			390 15.30 2.46			029	14.64	-.15
			234 14.73 .67			Avg 14.88			258 15.17 1.97			024	14.63	-.16
			185 14.65 .51			105 14.78 -.51			257 15.17 1.96			049	14.63	-.18
			040 14.55 .38			055 14.78 -.51			381 15.06 1.53			185	14.65	-.21
258	15.17	1.94	Avg 14.60			406 14.77 -.57			322 15.04 1.48			035	14.62	-.22
257	15.17	1.93	193 14.43 -.17			309 14.80 -.62			114 14.98 R 1.37			220	14.62	-.37
416	14.96	1.05	351 13.94 -1.13			288 14.79 -.69			416 14.96 1.12			394	14.60	-.42
095	14.88	.75	095 13.88 S -1.29			Meth: 050.61 PCT			247 14.91 1.04			027	14.55	-.51
009	14.87	.72	142 13.85 S -1.33			Soluble Potash			377 14.90 .90			372	14.55	-.52
043	14.86	.66	Meth: 050.50 PCT			Flame (Citrate)			095 14.88 .82			292	14.64	-.55
073	14.76	.45	Soluble Potash			105 14.84 1.31			009 14.87 .80			042	14.55	-.56
028	14.76	.25	ICP (Oxalate)			028 14.81 1.12			043 14.86 .74			070	14.65	-.59
102	14.75	.19	324 14.81 .88			025 14.76 .65			177 14.85 .69			040	14.55	-.67
Avg	14.70		402 14.81 .87			Avg 14.68			105 14.84 .65			041	14.50	-.70
350	14.68	-.12	106 14.77 .67			029 14.64 -.41			363 14.83 .65			211	14.49	-.72
029	14.66	-.17	292 14.64 .60			024 14.63 -.43			309 14.80 .64			007	14.49	-.73
392	14.66	-.21	Avg 14.62			035 14.62 -.55			288 14.79 .63			232	14.48	-.76
049	14.63	-.30	354 14.42 -.92			041 14.50 -1.56			324 14.81 .59			129	14.48	-.77
220	14.62	-.46	* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits						402 14.81 .58			260	14.47	-.89
									090 14.44 -.92			296	14.47	-.92

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 050.XX PCT			Meth: 101.30 PCT			Meth: 121.00 PCT			Meth: 121.99 PCT			Meth: 121.XX PCT		
<u>Soluble Potash</u>			Acid Soluble Calcium			Acid Soluble Magnesi			Acid Soluble Magnesi			<u>Acid Soluble Magnesi</u>		
418	14.63 R	- .95	<u>ICP</u>			<u>AA</u>			<u>Other</u>			043	1.14	- .56
354	14.42	-1.00	320	0.46	- .58	289	1.15	- .61	234	1.17	.00	262	1.12	- .83
193	14.43	-1.01	009	0.46	- .60	114	1.14	- .84				232	1.11	- .83
393	14.40	-1.05	131	0.46	-1.04	043	1.14	-1.00	Meth: 121.XX PCT			389	1.10	-1.06
157	14.28	-1.55	288	0.46	-1.42	262	1.12	-1.43	<u>Acid Soluble Magnesi</u>			106	1.09	-1.22
131	14.19	-1.89	102	0.44 s	-4.88	095	1.09	-2.21	330	2.17 s	15.77	095	1.09	-1.32
289	14.14	-2.11	Meth: 101.XX PCT			309	0.70 s	-11.82	354	1.34	2.68	320	1.07	-1.51
360	14.12	-2.21	<u>Acid Soluble Calcium</u>			086	0.63 s	-13.65	028	1.31 R	2.25	023	1.07	-1.52
351	13.94	-2.87	247	0.57 s	10.71	Meth: 121.30 PCT			247	1.30	2.10	292	1.01	-2.49
095	13.88 s	-3.13	105	0.48	1.84	Acid Soluble Magnesi			409	1.27	1.63	393	0.95 s	-3.50
142	13.85 s	-3.21	105	0.47	.75	<u>ICP</u>			220	1.24	1.24	309	0.70 s	-7.38
275	12.80 s	-7.36	Avg	0.46		330	2.17 s	10.98	360	1.20 R	1.08	086	0.63 s	-8.54
096	12.45 s	-8.69	035	0.46	- .20	354	1.34	2.00	055	1.22	.85	Meth: 131.00 PCT		
Meth: 060.00 PCT			009	0.46	- .59	247	1.30	1.61	300	1.22	.76	Water Soluble Magnes		
Free Water			320	0.46	- .62	409	1.27	1.29	105	1.21	.76	<u>AA</u>		
<u>Vacuum Oven</u>			131	0.46	- .84	360	1.20 R	.83	029	1.21	.71	289	0.69	.81
363	1.33	1.46	288	0.46	-1.04	300	1.22	.69	394	1.21	.68	220	0.72	.80
105	1.28	1.00	102	0.44 s	-3.62	394	1.21	.63	070	1.20	.61	Avg	0.64	
320	1.22	.49	Meth: 121.00 PCT			070	1.20	.57	392	1.19	.39	193	0.51	-1.10
Avg	1.16		Acid Soluble Magnesi			324	1.18	.26	381	1.18	.27	Meth: 131.30 PCT		
416	1.15	- .33	<u>AA</u>			035	1.17	.23	397	1.18	.19	Water Soluble Magnes		
362	1.08	- .70	028	1.31 s	3.44	288	1.17	.22	035	1.17	.16	<u>ICP</u>		
193	1.05	- .91	220	1.24	1.86	131	1.17	.15	040	1.17	.15	360	0.64	.71
007	1.01	-1.29	055	1.22	1.25	Avg	1.16		324	1.18	.15	Meth: 131.99 PCT		
Meth: 101.00 PCT			105	1.21	1.08	096	1.15	- .02	390	1.18	.15	Water Soluble Magnes		
Acid Soluble Calcium			029	1.21	1.01	009	1.14	- .16	351	1.17	.10	<u>Other</u>		
<u>AA</u>			177	1.20	.73	102	1.13	- .22	257	1.17	.09	040	2.48	.71
105	0.48	.71	392	1.19	.52	232	1.11	- .40	234	1.17	.04	Meth: 131.XX PCT		
Meth: 101.30 PCT			381	1.18	.38	389	1.10	- .56	Avg	1.17		Water Soluble Magnes		
Acid Soluble Calcium			397	1.18	.20	106	1.09	- .67	131	1.17	- .09	<u>Other</u>		
<u>ICP</u>			390	1.18	.15	320	1.07	- .87	296	1.16	- .21	040	2.48	1.89
247	0.57 s	15.61	257	1.17	.02	023	1.07	- .87	288	1.17	- .24	Avg	1.01	
105	0.47	1.29	Avg	1.17		292	1.01	-1.54	096	1.15	- .27	220	0.72	- .37
035	0.46	.19	351	1.17	- .14	393	0.95 S	-2.23	289	1.15	- .32	289	0.69	- .42
Avg	0.46		040	1.17	- .23	* X=Excluded from lab performance			114	1.14	- .46	S/s=Screened Outlier		
* X=Excluded from lab performance			296	1.16	- .44	R=Duplicate Range too large			102	1.13	- .56	A=Analysis beyond 3-s limits		
* 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: 131.XX PCT			Meth: 144.99 PCT			Meth: 144.XX PCT			Meth: 151.XX PPM			Meth: 181.00 PPM		
<u>Water Soluble Magnes</u>			Sulfur			<u>Sulfur</u>			<u>Arsenic</u>			Cadmium		
193	0.51	-.63	<u>Other</u>			029	7.79	.17	042	8.17	2.10	<u>Atomic Absorption</u>		
Meth: 144.01 PCT			354	9.35 s	4.68	405	7.76	.17	Avg	3.68		289	1.77	-.88
Sulfur			035	9.15 s	4.15	028	7.77	.13	220	3.20	-.22	Meth: 181.30 PPM		
<u>Gravimetric</u>			330	8.48	2.21	232	7.75 X	.04	106	3.45 R	-.28	Cadmium		
288	8.00	1.02	220	8.10	1.10	Avg	7.74		409	3.00	-.32	<u>ICP</u>		
193	7.98	.93	009	7.72 R	.73	157	7.73	-.03	040	2.97	-.33	042	3.51	1.70
043	7.97	.90	027	7.94	.63	289	7.69	-.26	102	2.84	-.39	247	3.35	1.41
324	7.93	.66	106	7.86	.40	360	7.70	-.35	247	1.90	-.83	035	2.84	.51
095	7.84	.65	040	7.78	.24	372	7.64	-.36	Meth: 165.00 PCT			009	2.65	.20
296	7.90	.59	029	7.79	.21	394	7.59	-.50	Acid Soluble Boron			Avg	2.55	
389	7.88	.38	028	7.77	.17	247	7.60	-.51	<u>Spectrometric</u>			102	2.26	-.51
105	7.83	.12	232	7.75 X	.09	009	7.72	-.87	393	41.900	-.71	324	2.25	-.53
Avg	7.81		Avg	7.71		131	7.38	-1.21	Meth: 165.99 PCT			106	2.20	-.63
405	7.76	-.40	360	7.70	-.28	073	7.34	-1.38	Acid Soluble Boron			232	2.01	-.98
102	7.78	-.41	394	7.59	-.36	086	7.15	-2.01	<u>Other</u>			288	1.87	-1.20
157	7.73	-.43	247	7.60	-.37	409	7.14	-2.03	009	80.050	1.29	Meth: 181.99 PPM		
372	7.64	-.99	131	7.38	-.96	023	7.15	-2.03	Avg	36.353		Cadmium		
073	7.34	-2.64	409	7.14	-1.65	070	7.20 R	-2.54	232	16.000	-.60	<u>Other</u>		
070	7.20 s	-4.42	023	7.15	-1.65	363	7.15 R	-2.90	288	13.010	-.69	362	6.59 S	.00
363	7.15 s	-4.99	Meth: 144.XX PCT			393	6.29 s	-4.91	Meth: 165.XX PCT			409	2.00	.00
397	5.08 s	-15.01	Sulfur			397	5.08 s	-9.02	Acid Soluble Boron			Avg	2.00	
Meth: 144.02 PCT			354	9.35 s	5.47	Meth: 151.30 PPM			Meth: 165.XX PCT			Meth: 181.XX PPM		
Sulfur			035	9.15 s	4.84	Arsenic			Acid Soluble Boron			Cadmium		
<u>Gravimetric</u>			330	8.48	2.54	<u>ICP</u>			009	80.050	1.47	362		
086	7.15	.71	220	8.10	1.22	042	8.17	1.57	393	41.900	.14	6.59 s 7.67		
Meth: 144.50 PCT			288	8.00	.88	Avg	4.09		Avg	37.740		042		
Sulfur			193	7.98	.83	106	3.45	-.32	232	16.000	-.76	3.51 2.05		
<u>Turbidimetric</u>			043	7.97	.80	102	2.84	-.48	288	13.010	-.86	247		
289	7.69	.71	027	7.94	.68	247	1.90	-.84	Meth: 181.00 PPM			3.35 1.75		
Meth: 144.70 PCT			324	7.93	.66	Meth: 151.99 PPM			Cadmium			363		
Sulfur			296	7.90	.58	Arsenic			<u>Atomic Absorption</u>			2.50 R .93		
<u>Spectrometric</u>			095	7.84	.51	<u>Other</u>			363	2.50 R	1.41	035		
393	6.29 S	.00	389	7.88	.48	220	3.20	1.25	193	2.75	1.40	2.84 .82		
* X=Excluded from lab performance			105	7.83	.32	Avg	3.06		394	2.27	.29	193		
S/s=Screened Outlier			102	7.78	.27	409	3.00	-.49	Avg	2.15		2.75 .66		
R=Duplicate Range too large			040	7.78	.23	040	2.97	-.83	220	1.80	-.83	009		
A=Analysis beyond 3-s limits												2.65 .48		
												Avg 2.39		
												394 2.27		
												102 2.26		
												324 2.25		
												106 2.20		
												-.40		

Laboratory Averages & Accuracy Indexes

<u>Lab</u>	<u>Average*</u>	<u>Index</u>	<u>Lab</u>	<u>Average*</u>	<u>Index</u>	<u>Lab</u>	<u>Average*</u>	<u>Index</u>	<u>Lab</u>	<u>Average*</u>	<u>Index</u>	<u>Lab</u>	<u>Average*</u>	<u>Index</u>			
Meth: 241.30 PCT			Meth: 241.XX PCT			Meth: 241.XX PCT			Meth: 251.XX PPM			Meth: 261.11 PCT					
Acid Soluble Iron			Acid Soluble Iron			Acid Soluble Iron			Lead			Acid Soluble Manganese					
<u>ICP</u>			<u>ICP</u>			<u>ICP</u>			<u>AA</u>			<u>AA</u>					
330	1.60 R	1.85	289	1.66	1.97	381	1.17	-1.51	106	7.40	1.03	Avg	0.414				
360	1.60	1.78	330	1.60 R	1.69	086	1.15	-1.68	009	7.15	.86	095	0.408	-.66			
354	1.56	1.45	360	1.60	1.62	402	1.13	-1.81	042	6.26	.27						
324	1.55	1.36	354	1.56	1.30	292	1.12	-1.83	232	6.29	.17						
320	1.46	.78	324	1.55	1.21	409	0.78 s	-4.24	Avg	6.24							
389	1.45	.62	234	1.55	1.21	Meth: 251.00 PPM			102	6.21	-.16	Meth: 261.30 PCT					
009	1.43	.59	220	1.53	1.03	Lead			409	6.00	-.22	Acid Soluble Manganese					
070	1.45	.58	320	1.46	.66	<u>Atomic Absorption</u>			040	5.82	-.39	<u>ICP</u>					
106	1.44	.55	055	1.47	.63	397	7.41	.89	288	5.65	-.54	330	0.505	2.20			
096	1.42	.41	389	1.45	.50	Avg	6.33		220	5.25	-.91	354	0.479	1.52			
102	1.39	.30	009	1.43	.49	220	5.25	-.84	324	3.70	-2.26	324	0.475	1.43			
131	1.41	.29	351	1.45	.47	Meth: 251.30 PPM			105	4.00 s	-3.32	102	0.453 R	1.23			
Avg	1.37		070	1.45	.47	Lead			Meth: 261.00 PCT			360	0.438 R	.65			
157	1.36	-.03	106	1.44	.43	<u>ICP</u>			Acid Soluble Manganese			035	0.436	.44			
247	1.34	-.21	296	1.42	.40	247	7.80	1.20	289	0.455	1.49	070	0.435	.43			
394	1.31	-.42	096	1.42	.31	106	7.40	.88	028	0.446	1.08	106	0.430	.28			
035	1.32	-.61	390	1.40	.26	009	7.15	.73	262	0.440	.87	009	0.428	.22			
023	1.28	-.62	102	1.39	.23	Avg	6.31		397	0.442	.86	131	0.425	.14			
288	1.27	-.77	131	1.41	.19	232	6.29	-.15	351	0.435	.44	157	0.424	.13			
300	1.25	-.90	262	1.38	.07	102	6.21	-.16	105	0.429	.38	Avg	0.419				
232	1.17	-1.47	Avg	1.38		042	6.26	-.25	296	0.429	.21	402	0.410	-.23			
402	1.13	-1.79	028	1.37	-.11	288	5.65	-.54	029	0.433	.37	300	0.410	-.23			
292	1.12	-1.82	177	1.37	-.11	324	3.70	-2.09	Avg	0.426		023	0.408	-.33			
409	0.78 s	-4.33	157	1.36	-.11	105	4.00 s	-3.03	257	0.426	-.08	389	0.405	-.38			
			397	1.35	-.18	Meth: 251.99 PPM			177	0.426	-.30	247	0.397	-.58			
			247	1.34	-.29	Lead			392	0.425	-.76	105	0.391	-.75			
			043	1.33	-.38	<u>Other</u>			381	0.400	-1.33	232	0.373	-1.20			
			394	1.31	-.49	409	6.00	.70	055	0.395	-1.60	292	0.365	-1.39			
			035	1.32	-.65	Avg	5.91		390	0.387	-2.01	320	0.350	-1.77			
			023	1.28	-.68	040	5.82	-1.00	086	0.347 s	-4.09	Meth: 261.31 PCT					
			362	1.35 R	-.74	Meth: 251.XX PPM			Meth: 261.11 PCT			Acid Soluble Manganese					
			288	1.27	-.82	Lead			Acid Soluble Manganese			<u>ICP</u>					
			300	1.25	-.95	<u>Other</u>			AA			Other					
			040	1.24	-1.01	247	7.80	1.38	040			0.421	1.03	Meth: 261.99 PCT			
			105	1.26	-1.03	Meth: 251.99 PPM			040			0.421	1.03	Acid Soluble Manganese			
			105	1.33 R	-1.21	Lead			040			0.421	1.03	Acid Soluble Manganese			
			232	1.17	-1.49	<u>Other</u>			040			0.421	1.03	Other			
			* 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: 261.99 PCT			Meth: 261.XX PCT			Meth: 281.99 PPM			Meth: 289.XX PPM			Meth: 291.XX PPM		
<u>Acid Soluble Manganese</u>			<u>Acid Soluble Manganese</u>			<u>Mercury</u>			<u>Molybdenum</u>			<u>Nickel</u>		
Other			023	0.408	-.47	Other			232	4.04	.11	042	22.10	1.49
Avg	0.449		389	0.405	-.53	220	0.02	.00	Avg	3.94		409	21.00	1.09
220	0.440	-.28	394	0.401	-.64				009	3.80	-.19	193	19.25	.62
394	0.401	-1.01	381	0.400	-.66	Meth: 281.XX PPM			106	3.65	-.36	009	18.85	.51
			247	0.397	-.76	<u>Mercury</u>			040	3.15	-1.06	102	18.60	.44
Meth: 261.XX PCT			055	0.395	-.82	040	20.25	1.28	288	3.24	-1.13	035	17.70	.33
<u>Acid Soluble Manganese</u>			105	0.391	-.96	Avg	7.76		324	2.60	-1.47	288	17.87	.23
234	0.505	2.41	390	0.387	-1.05	042	3.02	-.49				Avg	17.03	
330	0.505	2.41	232	0.373	-1.48	220	0.02	-.79	Meth: 291.00 PPM			220	16.00	-.29
354	0.479	1.63	292	0.365	-1.69	Meth: 289.30 PPM			<u>Nickel</u>			232	14.15 R	-1.08
324	0.475	1.54	320	0.350	-2.13	<u>Molybdenum</u>			<u>Atomic Absorption</u>			105	13.00	-1.15
102	0.453 R	1.34	086	0.347	-2.25	<u>ICP</u>			193	19.25	.87	324	11.85	-1.43
289	0.455	.96				042	13.40 s	13.46	Avg	17.63		247	11.15	-1.62
028	0.446	.71	Meth: 271.00 PCT			247	4.70	1.21	220	16.00	-.86	Meth: 301.30 PPM		
360	0.438	.67	<u>Water Soluble Manganese</u>			102	4.31	.85	Meth: 291.30 PPM			<u>Selenium</u>		
397	0.442	.59	<u>Atomic Abs</u>			232	4.04	.27	<u>Nickel</u>			<u>ICP</u>		
220	0.440	.59	193	0.243	.88	Avg	3.85		042	22.10	1.60	042	15.92 S	.00
262	0.440	.59	Avg	0.231		009	3.80	-.16	009	18.85	.73	247	1.00	.00
392	0.425	.44	029	0.218	-.85	106	3.65	-.35	102	18.60	.67	Avg	1.00	
035	0.436	.40	Meth: 271.30 PCT			288	3.24 R	-1.37	288	17.87	.48	Meth: 301.99 PPM		
070	0.435	.39	<u>Water Soluble Manganese</u>			324	2.60	-1.76	Avg	15.95		<u>Selenium</u>		
351	0.435	.36	<u>ICP</u>			Meth: 289.99 PPM			105	13.00	-.78	<u>Other</u>		
029	0.433	.32	157	0.393	.71	<u>Molybdenum</u>			232	14.15	-.80	409	1.00	1.28
288	0.432	.30	Meth: 271.XX PCT			<u>Other</u>			324	11.85	-1.02	Avg	0.46	
105	0.429	.28	<u>Water Soluble Manganese</u>			409	5.50	1.06	247	11.15	-1.20	220	0.25	-.48
106	0.430	.22	157	0.393	1.28	220	4.40	.34	Meth: 291.99 PPM			040	0.12	-.80
296	0.429	.21	Avg	0.285		Avg	4.35		<u>Nickel</u>			Meth: 301.XX PPM		
177	0.426	.20	193	0.243	-.49	040	3.15	-1.12	<u>Other</u>			<u>Selenium</u>		
043	0.425	.16	029	0.218	-.79	Meth: 289.XX PPM			409	21.00	.80	042	15.92 s	39.27
009	0.428	.16	Meth: 281.30 PPM			<u>Molybdenum</u>			Avg	19.35		247	1.00	.65
257	0.426	.10	<u>Mercury</u>			042	13.40 s	10.40	035	17.70	-.93	409	1.00	.65
131	0.425	.07	<u>ICP</u>			409	5.50	1.80	Meth: 291.99 PPM			Avg	0.75	
157	0.424	.05	040	20.25	.87	247	4.70	.84	<u>Nickel</u>			220	0.25	-1.29
Avg	0.423		Avg	11.64		220	4.40	.67	<u>Other</u>			040	0.12 R	-1.64
040	0.421	-.28	042	3.02	-.86	102	4.31	.59	Meth: 291.99 PPM			Meth: 301.XX PPM		
402	0.410	-.37	S/s=Screened Outlier			R=Duplicate Range too large			A=Analysis beyond 3-s limits			<u>Selenium</u>		
300	0.410	-.37	R=Duplicate Range too large			A=Analysis beyond 3-s limits			A=Analysis beyond 3-s limits			042		
095	0.408	-.45	A=Analysis beyond 3-s limits			A=Analysis beyond 3-s limits			A=Analysis beyond 3-s limits			15.92 s		

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 311.00 PCT			Meth: 321.00 PCT			Meth: 321.XX PCT			Meth: 325.30 PCT					
Sodium			Acid Soluble Zinc			<u>Acid Soluble Zinc</u>			Water Soluble Zinc					
<u>Atomic Absorption</u>			<u>Atomic Absorption</u>			086 0.024 s 7.27			<u>ICP</u>					
193	0.20	-.71	029	0.014	-.21	354	0.018 A	3.01	042	0.215	.71			
			105	0.014	-.79	330	0.017	2.03						
Meth: 311.30 PCT			390 0.013 -1.09			389 0.016 1.49			Meth: 325.XX PCT					
Sodium			193 0.013 -1.09			324 0.016 1.39			<u>Water Soluble Zinc</u>					
<u>Flame Photometric</u>						288 0.016 1.26			042 0.215 .87					
320	0.18	.71	Meth: 321.30 PCT			409 0.015 1.03			Avg 0.110					
			Acid Soluble Zinc			040 0.015 .90			193 0.006 -.87					
			<u>ICP</u>			296 0.015 .76								
Meth: 311.99 PCT			354 0.018 2.11			043 0.015 .62								
Sodium			330 0.017 1.37			009 0.015 .62								
<u>Other</u>			389 0.016 .96			096 0.014 .35								
096	0.25	1.67	324 0.016 .88			247 0.014 .06								
102	0.22	.44	288 0.016 .79			Avg 0.014								
Avg	0.20		040 0.015 .57			028 0.014 -.12								
247	0.20	-.40	009 0.015 .37			029 0.014 -.20								
035	0.18	-.81	096 0.014 .17			095 0.014 -.22								
009	0.18	-.84	Avg 0.014			035 0.014 -.23								
Meth: 311.XX PCT			247 0.014 -.12			102 0.013 -.37								
Sodium			035 0.014 -.28			105 0.014 -.47								
096	0.25 R	4.03	102 0.013 -.44			157 0.013 -.59								
102	0.22	1.64	157 0.013 -.61			193 0.013 -.66								
193	0.20	.77	106 0.013 -.67			390 0.013 -.66								
247	0.20	.39	105 0.013 -.86			106 0.013 -.66								
Avg	0.19		232 0.012 -1.04			105 0.013 -.97								
320	0.18	-.78	320 0.012 -1.06			232 0.012 -1.15								
035	0.18	-.83	402 0.011 -1.83			320 0.012 -1.18								
009	0.18	-.89				220 0.012 -1.26								
Meth: 321.00 PCT			Meth: 321.99 PCT			402 0.011 -2.21			Meth: 325.00 PCT					
Acid Soluble Zinc			Acid Soluble Zinc						Water Soluble Zinc					
<u>Atomic Absorption</u>			<u>Other</u>						<u>Atomic Absorption</u>					
086	0.024 s	13.94	409 0.015 .85						193 0.006 .71					
296	0.015	1.56	Avg 0.014											
043	0.015	1.34	220 0.012 -.88											
095	0.014	.43												
028	0.014	.21												
Avg	0.014													

* 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
001.10	9	- 0.58	1.98	0.14	050.XX	67	- 0.20	1.85	0.44
001.99	8	0.42	1.51	0.24	060.00	7	0.00	1.01	0.24
001.XX	17	- 0.04	1.74	0.21	060.XX	7	0.00	1.01	0.24
003.10	2	0.00	1.22	0.06	101.30	8	1.52	5.84	1.42
003.XX	2	0.00	1.22	0.06	101.XX	8	0.88	4.10	1.04
009.10	4	0.00	1.04	0.25	121.00	21	- 1.05	4.06	0.39
009.XX	5	0.00	1.04	0.18	121.30	22	0.52	2.53	0.17
010.11	10	- 0.48	1.78	0.27	121.XX	44	- 0.02	3.16	0.24
010.12	6	0.00	0.99	0.31	131.00	3	0.00	0.96	0.47
010.60	50	0.32	1.63	0.55	131.XX	5	0.00	1.06	0.06
010.99	3	- 2.04	3.63	0.33	144.01	16	- 1.38	3.93	1.14
010.XX	66	0.06	1.70	0.74	144.99	17	0.52	1.72	0.24
020.10	8	0.00	0.97	0.34	144.XX	36	- 0.21	2.34	0.51
020.20	22	0.04	0.98	0.26	151.30	4	0.00	1.07	0.12
020.40	9	0.00	1.01	0.18	151.99	3	0.00	1.09	0.20
020.50	3	- 1.31	6.82	0.43	151.XX	7	- 0.02	0.96	0.11
020.XX	42	0.04	1.84	0.33	165.99	3	0.000	1.114	0.081
030.10	3	0.00	1.08	0.24	165.XX	4	0.000	1.076	0.083
030.40	4	0.00	1.00	0.36	181.00	5	0.16	0.99	0.53
030.XX	9	8.93	26.82	0.87	181.30	9	0.00	1.02	0.14
040.10	2	0.00	0.71	0.71	181.99	2	0.00	0.00	0.00
040.20	3	0.00	1.08	0.23	181.XX	16	0.49	2.13	0.27
040.40	4	0.00	1.06	0.18	191.00	2	0.00	1.16	0.28
040.XX	10	0.12	1.03	0.24	191.30	10	0.00	1.02	0.14
041.10	14	0.03	0.97	0.27	191.XX	12	0.02	0.97	0.17
041.20	2	0.00	1.04	0.46	202.00	2	0.00	1.09	0.39
041.40	4	0.00	1.07	0.12	202.30	12	0.04	1.17	0.74
041.50	7	- 0.82	4.37	0.30	202.XX	15	- 0.10	1.02	0.55
041.60	10	0.00	1.02	0.09	221.00	9	0.345	3.166	1.607
041.XX	35	- 0.13	1.63	0.34	221.30	15	5.992	22.001	0.317
048.20	4	0.00	0.92	0.50	221.99	2	0.000	1.108	0.369
048.XX	5	0.33	1.18	0.58	221.XX	25	3.817	17.722	1.081
050.00	21	- 0.01	0.97	0.29	241.00	15	- 0.03	0.98	0.32
050.30	10	0.22	1.19	0.26	241.30	23	- 0.11	1.36	0.26
050.50	7	- 1.37	3.73	0.32	241.99	4	0.00	0.95	0.45
050.51	6	0.00	0.98	0.35	241.XX	41	- 0.06	1.18	0.28
050.60	7	0.00	0.94	0.42	251.00	2	0.00	1.16	0.29
050.61	7	0.00	1.01	0.24	251.30	9	- 0.21	1.14	0.82
050.99	12	- 0.14	2.59	0.54	251.99	2	0.00	0.99	0.51

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
251.XX	13	- 0.15	1.11	0.76					
261.00	16	- 0.251	1.368	0.362					
261.11	2	0.000	0.823	0.641					
261.30	20	0.067	0.978	0.241					
261.99	3	0.000	1.104	0.144					
261.XX	41	0.031	0.988	0.257					
271.00	2	0.000	1.207	0.148					
271.XX	3	0.000	1.118	0.021					
281.30	2	0.00	1.22	0.06					
281.XX	3	0.00	1.12	0.05					
289.30	8	1.57	4.88	0.47					
289.99	3	0.00	1.00	0.41					
289.XX	11	0.95	3.25	0.42					
291.00	2	0.00	1.22	0.09					
291.30	8	0.00	0.98	0.30					
291.99	2	0.00	1.13	0.34					
291.XX	12	- 0.07	0.98	0.29					
301.30	2	0.00	0.00	0.00					
301.99	3	0.00	1.12	0.01					
301.XX	5	7.51	17.73	1.25					
311.99	5	0.00	1.02	0.28					
311.XX	7	0.55	1.74	0.46					
321.00	9	1.526	4.660	0.897					
321.30	17	0.000	0.973	0.284					
321.99	2	0.000	1.205	0.154					
321.XX	27	0.391	1.737	0.394					