

- Pass 1 Results for 89 Labs - - Pass 2 Results for 87 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	7	1.96	0.27	0.03	7	1.96	0.27	0.03
Ammoniacal Nitrogen, Other		001.99	7	1.71	0.76	0.03	7	1.71	0.76	0.03
Method Group 001.XX PCT			14	1.84	0.58	0.03	14	1.84	0.58	0.03
Nitrate Nitrogen, Other		002.99	1	0.01	0.00	0.00	1	0.01	0.00	0.00
Water Insoluble Nitrogen, Meth I	945.01	003.10	7	5.81	2.28	0.34	7	5.81	2.28	0.34
Water Insoluble Nitrogen, Other		003.99	1	6.32	0.03	0.04	1	6.32	0.03	0.04
Method Group 003.XX PCT			8	5.88	2.13	0.30	8	5.88	2.13	0.30
Nitrogen From Urea, Urease (as N)	959.03	005.00	3	7.42	3.52	0.13	3	7.42	3.52	0.13
Nitrogen From Urea, Other		005.99	3	13.00	5.92	0.19	3	13.00	5.92	0.19
Method Group 005.XX PCT			6	10.21	5.48	0.16	6	10.21	5.48	0.16
Ammon & Nitrate N, Devarda	892.01	009.10	3	17.72	10.62	0.02	3	17.72	10.62	0.02
Total Nitrogen, Modified Comprehensive	978.02	010.11	9	21.19	0.17	0.07	9	21.19	0.17	0.07
Total Nitrogen, Salicylic	955.04D	010.12	3	21.39	0.36	0.03	3	21.39	0.36	0.03
Total Nitrogen, Combustion		010.60	58	21.42	0.24	0.13	55	21.41	0.22	0.11
Total Nitrogen, Other		010.99	4	21.24	0.32	0.18	4	21.24	0.32	0.18
Method Group 010.XX PCT			76	21.40	0.29	0.12	68	21.38	0.25	0.08
Total Phosphate, Grav Quimociac	962.02	020.10	5	3.85	0.05	0.03	5	3.85	0.05	0.03
Total Phosphate, Spectrometric	958.01	020.20	17	3.79	0.20	0.06	16	3.82	0.15	0.04
Total Phosphate, Automated	978.01	020.40	4	3.80	0.19	0.14	4	3.80	0.19	0.14
Total Phosphate, ICP		020.50	14	3.76	0.15	0.07	14	3.76	0.15	0.07
Total Phosphate, Other		020.99	1	3.87	0.00	0.00	1	3.87	0.00	0.00
Method Group 020.XX PCT			43	3.79	0.18	0.08	39	3.80	0.14	0.05
Insoluble Phosphate, Grav Quimociac	963.03C	030.10	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Insoluble Phosphate, Spectrometric	963.03C	030.20	2	0.13	0.07	0.02	2	0.13	0.07	0.02
Insoluble Phosphate, Automated	978.01	030.40	1	0.04	0.00	0.00	1	0.04	0.00	0.00
Insoluble Phosphate, ICP		030.50	1	0.03	0.00	0.00	1	0.03	0.00	0.00
Method Group 030.XX PCT			5	0.06	0.07	0.01	4	0.03	0.03	0.00
InDir Available Phosphate, Grav Quim	960.02	040.10	1	3.85	0.04	0.06	1	3.85	0.04	0.06
InDir Available Phosphate, Spectrometri	960.02	040.20	1	3.99	0.01	0.02	1	3.99	0.01	0.02
InDir Available Phosphate, Automated	960.02	040.40	2	3.55	0.03	0.03	2	3.55	0.03	0.03
InDir Available Phosphate, ICP		040.50	1	3.77	0.00	0.00	1	3.77	0.00	0.00
Method Group 040.XX PCT			5	3.74	0.18	0.03	5	3.74	0.18	0.03
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	13	3.75	0.11	0.06	12	3.76	0.10	0.04
Dir Available Phosphate, Automated	978.01	041.40	2	3.82	0.03	0.03	2	3.82	0.03	0.03
Dir Available Phosphate, ICP		041.50	13	3.79	0.12	0.05	13	3.79	0.12	0.05
Dir Available Phosphate, EDTA Extract	993.01	041.60	11	3.73	0.08	0.06	10	3.74	0.07	0.04
Dir Available Phosphate, Other		041.99	1	3.84	0.04	0.05	1	3.84	0.04	0.05
Method Group 041.XX PCT			41	3.76	0.11	0.06	38	3.77	0.10	0.04
Water Soluble Phosphate, Spectrometric	970.01	048.20	3	2.63	0.18	0.03	3	2.63	0.18	0.03

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Water Soluble Phosphate, Other		048.99	1	2.63	0.01	0.01	1	2.63	0.01	0.01
Method Group 048.XX PCT			4	2.63	0.15	0.02	4	2.63	0.15	0.02
Soluble Potash, STPB Oxalate	958.02	050.00	15	14.68	0.29	0.11	15	14.68	0.29	0.11
Soluble Potash, STPB Citrate	969.04	050.10	1	13.77	0.00	0.00	1	13.77	0.00	0.00
Soluble Potash, AA (Oxalate)		050.30	10	14.85	0.40	0.32	10	14.85	0.40	0.32
Soluble Potash, AA (Citrate)		050.31	1	14.93	0.01	0.01	1	14.93	0.01	0.01
Soluble Potash, ICP (Oxalate)		050.50	8	14.30	0.71	0.09	8	14.30	0.71	0.09
Soluble Potash, ICP (Citrate)		050.51	12	14.70	0.61	0.18	12	14.70	0.61	0.18
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	8	14.95	0.75	0.24	8	14.95	0.75	0.24
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	11	15.03	0.37	0.17	11	15.03	0.37	0.17
Soluble Potash, Other		050.99	17	14.50	0.74	0.27	16	14.48	0.75	0.23
Method Group 050.XX PCT			84	14.68	0.62	0.20	79	14.69	0.57	0.16
Free Water, Vacuum Oven	965.08B	060.00	5	1.13	0.12	0.05	5	1.13	0.12	0.05
Free Water, Vacuum Desiccate	965.08A	060.10	1	1.42	0.01	0.02	1	1.42	0.01	0.02
Method Group 060.XX PCT			6	1.18	0.15	0.05	6	1.18	0.15	0.05
Acid Soluble Calcium, AA	945.04	101.00	1	0.32	0.01	0.01	1	0.32	0.01	0.01
Acid Soluble Calcium, ICP		101.30	15	0.32	0.03	0.01	14	0.32	0.04	0.01
Method Group 101.XX PCT			16	0.32	0.03	0.01	15	0.32	0.03	0.01
Acid Soluble Magnesium, ICP		121.30	18	0.44	0.03	0.01	16	0.44	0.03	0.01
Method Group 121.XX PCT			18	0.44	0.03	0.01	16	0.44	0.03	0.01
Sulfur, Gravimetric	980.02a	144.01	15	6.76	0.13	0.06	14	6.76	0.13	0.05
Sulfur, Gravimetric	980.02b	144.02	1	6.10	0.06	0.08	1	6.10	0.06	0.08
Sulfur, Other		144.99	27	6.75	0.32	0.10	27	6.75	0.32	0.10
Method Group 144.XX PCT			43	6.74	0.29	0.09	42	6.74	0.29	0.08
Arsenic, Atomic Absorption		151.00	2	0.71	0.06	0.04	2	0.71	0.06	0.04
Arsenic, ICP		151.30	6	1.81	1.94	0.77	5	1.77	2.04	0.37
Arsenic, Other		151.99	1	0.91	0.00	0.00	1	0.91	0.00	0.00
Method Group 151.XX PPM			9	1.47	1.64	0.52	8	1.40	1.66	0.24
Acid Soluble Boron, Other		165.99	6	0.003	0.004	0.001	5	0.002	0.003	0.000
Cadmium, Atomic Absorption		181.00	1	0.65	0.07	0.10	1	0.65	0.07	0.10
Cadmium, ICP		181.30	10	0.68	0.18	0.15	10	0.68	0.18	0.15
Cadmium, Other		181.99	1	0.72	0.01	0.01	1	0.72	0.01	0.01
Method Group 181.XX PPM			12	0.68	0.17	0.13	12	0.68	0.17	0.13
Water Soluble Chlorine, Other		190.99	1	0.49	0.00	0.00	1	0.49	0.00	0.00
Chromium, Atomic Absorption		191.00	1	23.50	0.71	1.00	1	23.50	0.71	1.00
Chromium, ICP		191.30	17	20.91	4.44	1.04	16	20.93	4.56	0.88
Chromium, Other		191.99	1	27.70	2.83	4.00	1	27.70	2.83	4.00
Method Group 191.XX PPM			19	21.41	4.52	1.19	18	21.06	4.36	1.04
Acid Soluble Cobalt, AA		202.00	1	12.00	1.41	2.00	1	12.00	1.41	2.00

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Acid Soluble Cobalt, ICP .....	965.11	202.30	13	4.11	2.39	0.14	12	3.95	2.41	0.11
Acid Soluble Cobalt, Other .....		202.99	1	7.06	0.51	0.72	1	7.06	0.51	0.72
Method Group 202.XX PPM			15	4.84	3.06	0.31	14	4.32	2.42	0.19
Acid Soluble Copper, Atomic Absorption	975.01	221.00	4	0.0006	0.0005	0.0001	4	0.0006	0.0005	0.0001
Acid Soluble Copper, ICP .....		221.30	20	0.0012	0.0007	0.0003	20	0.0012	0.0007	0.0003
Acid Soluble Copper, Other .....		221.99	1	0.0010	0.0000	0.0000	1	0.0010	0.0000	0.0000
Method Group 221.XX PCT			25	0.0011	0.0007	0.0003	20	0.0009	0.0005	0.0001
Acid Soluble Iron, Atomic Absorption ..	980.01	241.00	17	0.72	0.05	0.03	16	0.72	0.04	0.02
Acid Soluble Iron, ICP .....		241.30	33	0.73	0.07	0.02	32	0.73	0.07	0.02
Acid Soluble Iron, Other .....		241.99	4	0.68	0.10	0.05	4	0.68	0.10	0.05
Method Group 241.XX PCT			54	0.72	0.07	0.02	52	0.72	0.06	0.02
Lead, ICP .....		251.30	8	0.90	0.63	0.29	7	0.82	0.60	0.18
Lead, Other .....		251.99	1	1.26	0.04	0.06	1	1.26	0.04	0.06
Method Group 251.XX PPM			9	0.94	0.61	0.26	8	0.87	0.58	0.17
Acid Soluble Manganese, AA .....	972.02a	261.00	12	0.247	0.010	0.003	11	0.247	0.010	0.002
Acid Soluble Manganese, AA .....	972.02b	261.11	3	0.237	0.009	0.005	3	0.237	0.009	0.005
Acid Soluble Manganese, ICP .....	972.02a	261.30	29	0.237	0.022	0.007	29	0.237	0.022	0.007
Acid Soluble Manganese, ICP .....	972.02b	261.31	2	0.231	0.024	0.003	2	0.231	0.024	0.003
Acid Soluble Manganese, Other .....		261.99	6	0.237	0.025	0.010	5	0.241	0.024	0.004
Method Group 261.XX PCT			53	0.239	0.020	0.006	51	0.238	0.019	0.005
Water Soluble Manganese, Atomic Abs ...	972.03	271.00	1	0.135	0.021	0.030	1	0.135	0.021	0.030
Water Soluble Manganese, ICP .....	972.03	271.30	2	0.106	0.025	0.031	2	0.106	0.025	0.031
Method Group 271.XX PCT			3	0.116	0.026	0.031	3	0.116	0.026	0.031
Mercury, ICP .....		281.30	2	0.00	0.00	0.00	2	0.00	0.00	0.00
Molybdenum, ICP .....		289.30	14	1.76	0.48	0.31	13	1.70	0.43	0.25
Molybdenum, Other .....		289.99	1	2.07	0.11	0.16	1	2.07	0.11	0.16
Method Group 289.XX PPM			15	1.78	0.47	0.30	14	1.73	0.43	0.25
Nickel, Atomic Absorption .....		291.00	2	11.50	3.04	1.60	2	11.50	3.04	1.60
Nickel, ICP .....		291.30	10	9.74	2.27	1.02	9	9.22	1.40	0.50
Nickel, Other .....		291.99	1	12.70	1.41	2.00	1	12.70	1.41	2.00
Method Group 291.XX PPM			13	10.24	2.46	1.19	12	9.89	2.06	0.81
Selenium, ICP .....		301.30	5	0.66	0.55	0.27	4	0.71	0.55	0.09
Sodium, Other .....		311.99	7	0.10	0.01	0.00	7	0.10	0.01	0.00
Acid Soluble Zinc, Atomic Absorption ..	975.02	321.00	5	0.006	0.001	0.001	5	0.006	0.001	0.001
Acid Soluble Zinc, ICP .....		321.30	22	0.006	0.001	0.000	21	0.006	0.001	0.000
Method Group 321.XX PCT			27	0.006	0.001	0.000	25	0.006	0.001	0.000
Water Soluble Zinc, ICP .....		325.30	1	0.016	0.000	0.001	1	0.016	0.000	0.001

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: 003.XX PCT			Meth: 010.11 PCT			Meth: 010.60 PCT				
<u>Ammoniacal Nitrogen</u>			<u>Ammoniacal Nitrogen</u>			<u>Water Insoluble Nitr</u>			<u>Total Nitrogen</u>			<u>Total Nitrogen</u>				
<u>MgO Distillation</u>									<u>Modified Comprehensi</u>			<u>Combustion</u>				
415	2.55	2.19	027	1.80	-.07	220	3.15 X	-1.29	211	22.14 s	5.52	324	21.60	1.26		
029	2.02	.21	454	1.78	-.12				220	21.44	1.46	368	21.66	1.15		
Avg	1.96		230	1.71	-.23	Meth: 005.00 PCT			371	21.42	1.35	330	21.50	1.00		
444	1.96	-.04	105	1.45	-.69	<u>Nitrogen From Urea</u>			029	21.26	.59	292	21.62	.95		
456	1.88	-.33	096	0.21	-2.84	<u>Urease (as N)</u>			105	21.20	.21	029	21.58	.82		
232	1.86	-.41	Meth: 002.99 PCT			232			11.90	1.27	090	21.21	.11	425	21.53	.68
454	1.78	-.71	<u>Nitrate Nitrogen</u>			Avg			7.42		Avg	21.19		452	21.56	.66
230	1.71	-.94	<u>Other</u>			220			4.52	-.82	416	21.15	-.22	102	21.55	.64
			232	0.01	.00	Meth: 005.99 PCT			309	21.06	-.74	231	21.54	.60		
Meth: 001.99 PCT			Meth: 003.10 PCT			Meth: 005.99 PCT			114	21.07	-.83	233	21.52	.55		
<u>Ammoniacal Nitrogen</u>			<u>Water Insoluble Nitr</u>			<u>Nitrogen From Urea</u>			456	20.90	-1.69	296	21.53	.52		
<u>Other</u>			<u>Meth I</u>			<u>Other</u>			234	21.48	.45	157	21.47	.42		
393	8.04 s	8.29	023	8.55	1.20	309	16.90	.66	Meth: 010.12 PCT			028	21.43	.39		
220	4.43 S	3.55	029	8.44	1.15	456	16.74	.63	<u>Total Nitrogen</u>			442	21.49	.34		
372	2.86	1.50	232	7.63	.80	Avg	13.00		<u>Salicylic</u>			055	21.48	.33		
397	2.01	.39	Avg	5.81		029	5.37	-1.29	415	23.76 S	6.65	007	21.45	.29		
255	1.85	.18	057	5.35	-.29	Meth: 005.XX PCT			455	23.70 S	6.48	409	21.46	.29		
420	1.84	.16	090	4.17	-.72	<u>Nitrogen From Urea</u>			254	21.81	1.17	024	21.45	.20		
027	1.80	.11	372	3.41	-1.05	309	16.90	1.22	Avg	21.39		131	21.42	.10		
Avg	1.71		220	3.15 X	-1.17	456	16.74	1.19	397	21.35	-.14	Avg	21.41			
105	1.45	-.35	Meth: 003.99 PCT			232	11.90	.31	185	21.01	-1.05	262	21.40	-.05		
096	0.21	-1.98	<u>Water Insoluble Nitr</u>			Avg	10.21		Meth: 010.60 PCT			450	21.40	-.05		
Meth: 001.XX PCT			<u>Other</u>			255	5.84	-.80	<u>Total Nitrogen</u>			354	21.41	-.08		
<u>Ammoniacal Nitrogen</u>			027	6.32	-.71	029	5.37	-.88	<u>Combustion</u>			232	21.40	-.14		
393	8.04 s	10.77	Meth: 003.XX PCT			220	4.52	-1.04	422	24.06 s	12.13	034	21.41	-.21		
220	4.43 s	4.49	<u>Water Insoluble Nitr</u>			Meth: 009.10 PCT			420	22.99 s	7.23	377	21.35	-.31		
372	2.86	1.76	<u>Ammon &amp; Nitrate N</u>			<u>Devarda</u>			095	22.91 s	6.86	291	21.35	-.33		
415	2.55	1.24	023	8.55	1.26	200	26.61	.84	351	22.70 s	5.93	360	21.36	-.33		
029	2.02	.31	029	8.44	1.21	030	22.33	.43	117	22.44 s	4.72	009	21.37	-.41		
397	2.01	.30	232	7.63	.82	Avg	17.72		230	22.05 R	3.14	040	21.33	-.42		
444	1.96	.21	027	6.32	.21	309	4.23	-1.27	096	21.93	2.38	247	21.33	-.47		
456	1.88	.07	Avg	5.88		Meth: 009.10 PCT			372	21.81	1.80	022	21.30	-.51		
232	1.86	.04	057	5.35	-.33	<u>Ammon &amp; Nitrate N</u>			023	21.79	1.73	057	21.30	-.52		
255	1.85	.02	090	4.17	-.80	<u>Devarda</u>			049	21.77	1.63	136	21.29	-.59		
Avg	1.84		372	3.41	-1.16	200	26.61	.84	393	21.75	1.55	027	21.27	-.65		
420	1.84	-.04				Avg	17.72		177	21.73	1.49	037	21.31	-.76		

\* 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: 010.60 PCT			Meth: 010.XX PCT			Meth: 010.XX PCT			Meth: 010.XX PCT			Meth: 020.40 PCT		
Total Nitrogen			Total Nitrogen			Total Nitrogen			Total Nitrogen			Total Phosphate		
<u>Combustion</u>									<u>Automated</u>					
389	21.25	-.78	230	22.05 R	2.85	377	21.35	-.18	105	19.13 s	-9.04	247	4.03	1.48
043	21.29	-.96	096	21.93	2.19	291	21.35	-.18	Meth: 020.10 PCT			105	3.83	.20
426	21.27	-.98	372	21.81	1.69	397	21.35	-.18	Total Phosphate			Avg	3.80	
421	21.25	-1.01	254	21.81	1.69	360	21.36	-.22	<u>Grav Quimociac</u>			456	3.73	-.46
041	21.19	-1.04	023	21.79	1.62	040	21.33	-.27	114	3.89	.89	096	3.60	-1.02
042	21.30	-1.05	049	21.77	1.53	247	21.33	-.32	041	3.89	.82	Meth: 020.50 PCT		
406	21.18	-1.07	393	21.75	1.47	009	21.37	-.32	105	3.85	.00	Total Phosphate		
402	21.40 R	-1.10	177	21.73	1.41	022	21.30	-.33	Avg			090	3.85	-.62
443	21.15	-1.22	324	21.60 R	1.18	057	21.30	-.34	157	3.78	-1.63	<u>ICP</u>		
390	21.13	-1.33	420	21.67	1.16	136	21.29	-.41	444	4.07 s	2.76	444	4.07 s	2.76
369	21.31 R	-1.49	368	21.66	1.12	027	21.27	-.45	452	4.04	1.89	426	4.00	1.54
025	21.08	-1.52	402	21.40 R	.96	389	21.25	-.57	426	4.00	1.54	389	3.96	1.34
325	21.00	-1.89	292	21.62	.95	029	21.26	-.59	330	3.80	.71	330	3.80	.71
073	20.99	-1.97	330	21.50 R	.93	037	21.31	-.60	Meth: 020.20 PCT			255	3.79	.20
444	20.98	-2.00	029	21.58	.82	090	21.21	-.71	Total Phosphate			Avg	3.76	
428	20.75 s	-5.68	452	21.56	.69	105	21.20	-.77	<u>Spectrometric</u>			402	3.75	-.16
			425	21.53	.69	137	21.19	-.77	372	4.18	2.32	368	3.73	-.24
			102	21.55	.67	043	21.29	-.78	232	3.94	.81	422	3.72	-.32
			231	21.54	.63	426	21.27	-.78	292	3.94	.76	393	3.71	-.40
			233	21.52	.58	041	21.19	-.80	234	3.93	.66	425	3.72	-.44
			296	21.53	.57	421	21.25	-.80	042	3.85	.55	307	3.68	-.81
			234	21.48	.48	406	21.18	-.82	450	3.88	.45	390	3.64	-.82
			157	21.47	.45	042	21.30 R	-.87	169	3.89	.40	421	3.61	-1.19
			442	21.49	.41	416	21.15	-.93	406	3.88	.35	432	3.56	-1.38
			055	21.48	.39	443	21.15	-.96	220	3.86	.20	Meth: 020.99 PCT		
			028	21.43	.38	390	21.13	-1.05	Avg			Total Phosphate		
			409	21.46	.34	025	21.08	-1.21	371	3.81	-.16	<u>Other</u>		
			007	21.45	.33	369	21.31 R	-1.27	177	3.80	-.18	137	3.87	.00
			024	21.45	.28	309	21.06	-1.30	416	3.74	-.55	443	5.06 S	.00
			220	21.44	.25	114	21.07	-1.31	200	3.71	-.78	455	2.15 S	.00
			034	21.41	.20	185	21.01	-1.49	324	3.66	-1.07	Avg	3.87	
			371	21.42	.19	325	21.00	-1.53	369	3.61	-1.53			
			131	21.42	.17	255	20.99	-1.57	415	3.55	-1.79			
			232	21.40	.11	073	20.99	-1.61	442	3.27 R	-3.68			
			354	21.41	.11	444	20.98	-1.64	262	3.15 S	-4.40			
			262	21.40	.07	454	21.09 R	-1.65	309	3.31 S	-4.58			
			450	21.40	.07	456	20.90	-1.95	420	2.72 S	-7.19			
			Avg	21.38		428	20.75 s	-4.91	428	2.13 s	-11.05			

\* 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: 020.XX PCT			Meth: 020.XX PCT			Meth: 030.XX PCT			Meth: 041.10 PCT			Meth: 041.50 PCT		
<u>Total Phosphate</u>			<u>Total Phosphate</u>			<u>Insoluble Phosphate</u>			<u>Dir Available Phosph</u>			<u>Dir Available Phosph</u>		
443	5.06 s	8.84	096	3.60	-1.41	372	0.19 R	6.26	105	3.87	1.04	043	3.87	.61
444	4.07 R	2.74	421	3.61	-1.49	220	0.07	1.30	296	3.85	.87	291	3.86	.54
372	4.18	2.68	369	3.61	-1.49	096	0.04	.30	057	3.85	.85	007	3.83	.34
247	4.03 R	2.01	432	3.56	-1.71	Avg	0.03		055	3.79	.68	Avg	3.79	
452	4.04	1.77	415	3.55	-1.75	255	0.03	-.30	029	3.83	.64	454	3.73	-.59
426	4.00	1.38	444	3.48 R	-2.51	090	0.00	-1.28	131	3.83	.63	022	3.70	-.73
389	3.96	1.17	442	3.27 A	-3.80	Meth: 040.10 PCT			022	3.80	.41	009	3.66	-1.12
232	3.94	1.03	262	3.15 s	-4.58	InDir Available Phos			040	3.77	.31	393	3.61	-1.47
292	3.94	1.00	309	3.31 s	-4.82	<u>Grav Quim</u>			Avg	3.76		354	3.58	-1.75
234	3.93	.89	420	2.72 s	-7.59	090	3.85	.71	102	3.75	-.11	Meth: 041.60 PCT		
330	3.80	.70	455	2.15 s	-11.60	Meth: 040.20 PCT			254	3.67	-1.04	Dir Available Phosph		
042	3.85	.67	428	2.13 s	-11.75	InDir Available Phos			049	3.59	-1.73	<u>EDTA Extract</u>		
041	3.89	.64	Meth: 030.10 PCT			<u>Spectrometri</u>			211	3.58	-1.82	296	3.84	1.52
450	3.88	.64	Insoluble Phosphate			372	3.99	-.71	009	3.64 R	-1.89	351	3.80	.86
114	3.89	.63	<u>Grav Quimociac</u>			Meth: 040.40 PCT			Meth: 041.20 PCT			034	3.77	.86
169	3.89	.61	090	0.00	.00	InDir Available Phos			Dir Available Phosph			073	3.78	.64
406	3.88	.55	Meth: 030.20 PCT			<u>Automated</u>			<u>Spectrometric</u>			057	3.74	.29
137	3.87	.50	Insoluble Phosphate			096	3.56	1.18	055	3.21 S	.00	043	3.75	.25
090	3.85	.42	<u>Spectrometric</u>			Avg	3.55		Meth: 041.40 PCT			Avg	3.74	
220	3.86	.40	372	0.19	.89	027	3.55	-.34	Dir Available Phosph			024	3.71	-.39
105	3.85	.36	Avg	0.13		Meth: 040.50 PCT			Automated			106	3.69	-.70
105	3.83	.26	220	0.07	-.85	InDir Available Phos			131	3.84	.47	028	3.68	-.90
371	3.81	.11	Meth: 030.40 PCT			ICP			Avg	3.82		397	3.62	-1.92
Avg	3.80		Insoluble Phosphate			255	3.77	.71	029	3.81	-1.13	105	3.66 R	-2.42
255	3.79	-.04	<u>Automated</u>			Meth: 040.XX PCT			095	3.25 S	-20.11	231	3.66 s	-3.34
177	3.80	-.04	096	0.04	.00	InDir Available Phos			025	3.18 S	-22.54	Meth: 041.99 PCT		
157	3.78	-.24	Meth: 030.50 PCT			<u>ICP</u>			Meth: 041.50 PCT			Dir Available Phosph		
402	3.75	-.37	Insoluble Phosphate			372	3.99	1.37	Dir Available Phosph			<u>Other</u>		
416	3.74	-.41	<u>ICP</u>			090	3.85	.62	ICP			105	3.84	.71
368	3.73	-.49	255	0.03	.00	255	3.77	.14	325	3.95	1.37	Avg	3.84	
422	3.72	-.59	Meth: 030.50 PCT			Avg	3.74		360	3.92	1.03	230	2.68 S	-33.37
456	3.73	-.64	Insoluble Phosphate			096	3.56	-1.02	452	3.88	.77			
425	3.72	-.66	<u>ICP</u>			027	3.55	-1.09	023	3.86	.64			
200	3.71	-.66	Meth: 030.50 PCT			Meth: 040.50 PCT			377	3.85	.64			
393	3.71	-.67	Insoluble Phosphate			InDir Available Phos								
324	3.66	-.98	<u>ICP</u>			ICP								
307	3.68	-1.05	Meth: 030.50 PCT			ICP								
390	3.64	-1.12	Insoluble Phosphate			ICP								

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	
Meth: 041.XX PCT			Meth: 041.XX PCT			Meth: 050.00 PCT			Meth: 050.31 PCT			Meth: 050.60 PCT			
<u>Dir Available Phosph</u>			<u>Dir Available Phosph</u>			<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Soluble Potash</u>			
325	3.95	1.85	354	3.58	-1.93	<u>STPB Oxalate</u>			<u>AA (Citrate)</u>			<u>Flame (Oxalate)</u>			
360	3.92	1.45	211	3.58	-1.93	090	14.80	.41	254	14.93	-.71	406	15.44	.65	
452	3.88	1.13	009	3.64 R	-1.97	416	14.78	.34	Meth: 050.50 PCT			105	14.99	.06	
105	3.87	.97	231	3.66 R	-2.42	397	14.68	.34	<u>Soluble Potash</u>			Avg 14.95			
023	3.86	.95	095	3.25 s	-5.20	049	14.73	.22	<u>ICP (Oxalate)</u>			055	14.44	-.69	
043	3.87	.94	055	3.21 s	-5.63	Avg 14.68			422	15.06	1.07	157	14.39	-.79	
377	3.85	.94	025	3.18 s	-5.89	055	14.64	-.24	324	14.90	.86	200	14.25	-.93	
291	3.86	.86	230	2.68 s	-11.06	029	14.53	-.58	292	14.85	.78	309	14.30	-.94	
296	3.85	.79	Meth: 048.20 PCT			102	14.39	-1.07	106	14.78	.69	Meth: 050.61 PCT			
057	3.85	.78	<u>Water Soluble Phosph</u>			043	14.35	-1.14	Avg 14.30			<u>Soluble Potash</u>			
296	3.84	.72	<u>Spectrometric</u>			372	14.28	-1.37	454	14.13	-.24	<u>Flame (Citrate)</u>			
105	3.84	.69	372	2.86	1.28	022	14.23	-1.55	426	13.89	-.59	095	15.69	1.75	
055	3.79	.66	Avg 2.63			230	13.40 s	-4.69	420	13.86	-.62	028	15.49	1.30	
131	3.84	.65	420	2.52	-.64	Meth: 050.10 PCT			425	12.92	-1.94	025	15.37	.91	
007	3.83	.60	096	2.51	-.67	<u>Soluble Potash</u>			Meth: 050.51 PCT			029	15.14	.50	
029	3.83	.57	Meth: 048.99 PCT			<u>STPB Citrate</u>			<u>Soluble Potash</u>			041	15.07	.37	
131	3.83	.55	<u>Water Soluble Phosph</u>			444	13.77	.00	<u>ICP (Citrate)</u>			024	15.05	.08	
029	3.81	.50	<u>Other</u>			Meth: 050.30 PCT			389	15.85	1.89	Avg 15.03			
034	3.77	.48	247	2.63	.71	<u>Soluble Potash</u>			452	15.26	.92	057	14.88	-.56	
022	3.80	.35	Meth: 048.XX PCT			450	16.22 s	4.04	023	15.26	.92	131	14.71	-.86	
040	3.77	.30	<u>Water Soluble Phosph</u>			369	15.49	1.69	432	15.14	.72	034	14.65	-1.01	
351	3.80	.26	372 2.86 1.52			262	15.26	1.18	007	14.83	.48	456	14.65	-1.07	
073	3.78	.14	Avg 2.63			040	15.04	.56	291	14.87	.28	105	14.64	-1.13	
Avg	3.77		247 2.63 -.04	Meth: 050.00 PCT			442	14.86	.35	Meth: 050.99 PCT					
102	3.75	-.20	420 2.52 -.75	<u>Soluble Potash</u>			234	14.96	.27	<u>Soluble Potash</u>					
043	3.75	-.29	096 2.51 -.79	<u>STPB Oxalate</u>			136	14.90	.22	<u>Other</u>					
057	3.74	-.36	220 15.28 2.06			351 14.85			393	14.30	-.69	307 15.98 2.01			
454	3.73	-.56	114 15.06 1.29	185 14.35 -1.28			009 14.49 -.89			009	14.28	-.70	027 15.49 1.35		
024	3.71	-.59	009 14.83 .66	Meth: 050.60 PCT			073 14.63 -.92			043	14.02	-1.14	325 15.15 .89		
022	3.70	-.69	057 14.84 .62	<u>Soluble Potash</u>			428 14.51 -1.19			022	13.70	-1.65	042 14.81 R .77		
106	3.69	-.80	211 14.81 .43	<u>STPB Oxalate</u>			485 14.35 -1.28			Meth: 050.60 PCT			232 14.99 .68		
028	3.68	-.94	114 15.06 1.29			Meth: 050.60 PCT			<u>Soluble Potash</u>			177 14.96 .65			
254	3.67	-1.13	009 14.83 .66			<u>Soluble Potash</u>			<u>Flame (Oxalate)</u>			131 14.85 .52			
009	3.66	-1.17	057 14.84 .62			<u>STPB Oxalate</u>			443 16.36 1.93			402 14.56 .39			
393	3.61	-1.59	211 14.81 .43			<u>Soluble Potash</u>			415 15.47 .69			247 14.68 .28			
397	3.62	-1.60				<u>STPB Oxalate</u>									
105	3.66 R	-1.83				<u>Soluble Potash</u>									
049	3.59	-1.84				<u>STPB Oxalate</u>									

\* 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: 060.10 PCT			Meth: 101.30 PCT		
<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Free Water</u>			<u>Acid Soluble Calcium</u>		
<u>Other</u>									<u>Vacuum Desiccate</u>			<u>ICP</u>		
421	14.50	.14	232	14.99	.53	157	14.39	-.63	372	1.42	.71	027	0.25	-2.12
Avg	14.48		105	14.99	.53	185	14.35	-.65				368	0.01 s	-8.96
390	14.45	-.34	007	14.83	.52	444	14.34	-.67	Meth: 060.XX PCT			041	0.00 s	-9.19
255	13.87	-.82	177	14.96	.49	428	14.51 R	-.68	<u>Free Water</u>			Meth: 101.XX PCT		
354	13.83	-.88	234	14.96	.47	393	14.30	-.71	372	1.42	1.56	<u>Acid Soluble Calcium</u>		
368	13.74	-1.00	254	14.93	.41	009	14.28	-.72	247	1.30	.77	422	0.68 s	10.54
137	13.60	-1.18	057	14.88	.41	372	14.28	-.72	105	1.22	.37	096	0.52 s	5.83
360	13.61	-1.22	324	14.90	.41	200	14.25	-.77	Avg	1.18		450	0.41	2.60
330	13.50	-1.42	442	14.86	.39	022	14.23	-.82	416	1.06	-.79	390	0.35	.92
455	11.80 s	-3.60	136	14.90	.38	309	14.30	-.83	096	1.06	-.82	057	0.34 R	.79
			131	14.85	.36	454	14.13	-.98	007	1.03	-1.01	106	0.34	.60
			009	14.83	.32	043	14.02	-1.19	Meth: 101.00 PCT			247	0.34	.52
			291	14.87	.32	426	13.89	-1.42	<u>Acid Soluble Calcium</u>			131	0.33	.08
			057	14.84	.31	255	13.87	-1.43	<u>AA</u>			420	0.33	.08
			292	14.85	.28	420	13.86	-1.47	105	0.32	.71	102	0.33	.08
			106	14.78	.21	354	13.83	-1.51	Meth: 101.30 PCT			Avg	0.32	
			211	14.81	.20	444	13.77	-1.62	<u>Acid Soluble Calcium</u>			307	0.32	-.17
			090	14.80	.20	368	13.74	-1.67	<u>ICP</u>			105	0.32	-.19
			416	14.78	.16	022	13.70	-1.74	422	0.68 s	10.18	065	0.32	-.29
			049	14.73	.10	137	13.60	-1.91	096	0.52 s	5.63	433	0.30	-.59
			131	14.71	.03	360	13.61	-1.95	450	0.41	2.50	454	0.30	-.66
			Avg	14.69		330	13.50 R	-2.20	390	0.35	.89	389	0.30	-.66
			034	14.65	-.07	230	13.40 R	-2.43	057	0.34 R	.76	027	0.25	-2.19
			055	14.64	-.14	425	12.92	-3.12	106	0.34	.57	368	0.01 s	-9.27
			247	14.68	-.14	030	11.86 s	-4.98	247	0.34	.49	041	0.00 s	-9.50
			397	14.68	-.18	455	11.80 s	-5.08	131	0.33	.07	Meth: 121.00 PCT		
			456	14.65	-.22	Meth: 060.00 PCT			420	0.33	.07	<u>Acid Soluble Magnesi</u>		
			377	14.60	-.24	<u>Free Water</u>			102	0.33	.07	<u>AA</u>		
			105	14.64	-.31	<u>Vacuum Oven</u>			Avg	0.32		105	0.36 s	.00
			029	14.53	-.31	247	1.30	1.42	307	0.32	-.17	Meth: 121.30 PCT		
			351	14.49	-.36	105	1.22	.84	232	0.32	-.28	<u>Acid Soluble Magnesi</u>		
			421	14.50	-.38	Avg	1.13		065	0.32	-.28	<u>ICP</u>		
			055	14.44	-.46	416	1.06	-.63	433	0.30	-.57	422	0.54 s	3.79
			073	14.63	-.54	096	1.06	-.71	454	0.30	-.64			
			402	14.56	-.55	007	1.03	-.93	389	0.30	-.64			
			102	14.39	-.57									
			043	14.35	-.61									
			390	14.45	-.61									

\* 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: 121.30 PCT			Meth: 121.XX PCT			Meth: 144.99 PCT			Meth: 144.XX PCT			Meth: 144.XX PCT		
<u>Acid Soluble Magnesi</u>			<u>Acid Soluble Magnesi</u>			<u>Sulfur</u>			<u>Sulfur</u>			<u>Sulfur</u>		
ICP			232	0.43	-.86	Other			291	7.19	1.57	292	6.10	-2.23
444	0.50	2.26	450	0.43 R	-.86	393	8.16 s	4.37	360	6.95	.72	049	6.10	-2.24
096	0.48	1.50	065	0.42	-.94	307	7.40	2.02	262	6.93	.66	397	5.76 s	-3.43
102	0.46	.77	421	0.44 R	-.98	157	7.36	1.94	029	6.89	.63	200	5.04 s	-5.93
131	0.46	.68	247	0.42	-.99	389	7.23	1.47	324	6.89	.54	Meth: 151.00 PPM		
389	0.46	.58	454	0.40	-1.48	220	7.20	1.41	232	6.80	.49	Arsenic		
390	0.45	.33	105	0.36 s	-3.54	291	7.19	1.36	296	6.86	.46	<u>Atomic Absorption</u>		
307	0.45	.26	041	0.30 s	-5.35	360	6.95	.62	330	6.85	.42	220	0.76	.81
420	0.44	.06	Meth: 144.01 PCT			232	6.80	.43	105	6.86	.42	Avg	0.71	
Avg	0.44		Sulfur			330	6.85	.35	354	6.84	.40	136	0.66	-.92
027	0.43	-.44	Gravimetric			354	6.84	.33	037	6.75	.28	Meth: 151.30 PPM		
106	0.43	-.62	262	6.93	1.37	037	6.75	.25	136	6.82	.27	Arsenic		
433	0.42	-.71	029	6.89 R	1.32	136	6.82	.22	057	6.81	.25	<u>ICP</u>		
057	0.42	-.80	324	6.89	1.11	137	6.81	.19	137	6.81	.24	232	10.95 S	4.53
232	0.43	-.86	296	6.86	.94	452	6.75	.12	043	6.81	.24	368	5.25	1.75
450	0.43 R	-.86	105	6.86	.83	Avg	6.75		028	6.79	.17	065	2.04 R	.70
065	0.42	-.94	057	6.81	.44	027	6.74	-.02	452	6.75	.14	393	2.33	.28
421	0.44 R	-.98	043	6.81	.43	390	6.73	-.11	095	6.75	.08	Avg	1.77	
247	0.42	-.99	028	6.79	.26	454	6.67	-.24	102	6.74	.00	230	0.68	-.54
454	0.40	-1.48	Avg	6.76		422	6.59	-.50	027	6.74	.00	372	0.59	-.58
041	0.30 s	-5.35	102	6.74	-.11	023	6.61	-.51	Avg	6.74		372	0.59	-.58
Meth: 121.XX PCT			095	6.75	-.16	368	6.66	-.55	390	6.73	-.11	450	0.00	-.87
<u>Acid Soluble Magnesi</u>			372	6.72	-.32	131	6.56	-.59	117	6.68	-.22	Meth: 151.99 PPM		
422	0.54 s	3.79	117	6.68	-.62	421	6.52	-.72	454	6.67	-.24	Arsenic		
444	0.50	2.26	055	6.69	-.71	247	6.52	-.73	055	6.69	-.27	<u>Other</u>		
096	0.48	1.50	114	6.64	-.95	351	6.48	-.84	114	6.64	-.36	409	0.91	.00
102	0.46	.77	444	6.44	-2.54	450	6.45	-.94	114	6.64	-.36	Meth: 151.XX PPM		
131	0.46	.68	397	5.76 s	-7.89	177	6.41	-1.05	422	6.59	-.55	Arsenic		
389	0.46	.58	200	5.04 s	-13.58	255	6.22	-1.64	023	6.61	-.56	<u>Arsenic</u>		
390	0.45	.33	Meth: 144.02 PCT			049	6.10	-2.01	368	6.66 R	-.61	232	10.95 s	5.79
307	0.45	.26	Sulfur			Meth: 144.XX PCT			131	6.56	-.64	368	5.25	2.37
420	0.44	.06	Gravimetric			Sulfur			421	6.52	-.78	065	2.04 R	.93
Avg	0.44		292	6.10	.71	393	8.16 s	4.96	247	6.52	-.80	393	2.33	.56
027	0.43	-.44	Meth: 144.02 PCT			307	7.40	2.30	351	6.48	-.92	Avg	1.40	
106	0.43	-.62	Sulfur			157	7.36	2.21	450	6.45	-1.04	409	0.91	-.29
433	0.42	-.71	Gravimetric			389	7.23	1.69	444	6.44	-1.07	220	0.76	-.38
057	0.42	-.80	292	6.10	.71	220	7.20	1.61	177	6.41	-1.17			
									255	6.22	-1.83			

\* 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
<u>Meth: 151.XX PPM</u>			<u>Meth: 181.99 PPM</u>			<u>Meth: 191.30 PPM</u>			<u>Meth: 191.XX PPM</u>			<u>Meth: 202.XX PPM</u>		
<u>Arsenic</u>			<u>Cadmium</u>			<u>Chromium</u>			<u>Chromium</u>			<u>Acid Soluble Cobalt</u>		
230	0.68	-.44	Other			ICP			444	20.67	-.42	450	6.10	.74
136	0.66	-.44	409	0.72	.71	368	22.75	.40	255	16.25	-1.10	009	6.05	.71
372	0.59	-.49				037	22.19	.39	230	14.45	-1.52	102	5.68	.56
450	0.00	-.84	<u>Meth: 181.XX PPM</u>			247	22.50	.36	027	14.16	-1.58	065	5.57	.51
			<u>Cadmium</u>			065	22.35	.33	372	12.29	-2.01	057	5.55	.51
			393	28.67	s 165.61	096	22.00	.32				231	5.51	.49
<u>Meth: 165.99 PCT</u>			444	0.85	1.55	009	21.45	.15	<u>Meth: 202.00 PPM</u>			247	5.50	.49
<u>Acid Soluble Boron</u>			247	0.88	1.16	232	21.40	.14	<u>Acid Soluble Cobalt</u>			393	5.36	.43
<u>Other</u>			065	0.83	X 1.05	Avg	20.93		<u>AA</u>			452	4.60	.13
368	0.008	R 2.46	255	0.73	.30	231	19.71	-.29	136	12.00	.71	Avg	4.32	
454	0.007	X 1.86	452	0.70	.28	444	20.67	R -.40				230	3.57	-.32
Avg	0.002		102	0.72	.21	255	16.25	-1.03	<u>Meth: 202.30 PPM</u>			368	0.00	-1.78
422	0.002	-.06	409	0.72	.20	230	14.45	-1.42	<u>Acid Soluble Cobalt</u>			232	0.00	-1.78
433	0.001	-.56	Avg	0.68		027	14.16	-1.48	<u>ICP</u>			372	0.00	-1.78
232	0.001	-.61	136	0.65	-.35	372	12.29	-1.89	450	6.10	R .90			
409	0.001	-.61	009	0.65	-.35				009	6.05	.87	<u>Meth: 221.00 PCT</u>		
			230	0.51	-1.02	<u>Meth: 191.99 PPM</u>			102	5.68	.72	<u>Acid Soluble Copper</u>		
<u>Meth: 181.00 PPM</u>			450	0.55	-1.41	<u>Chromium</u>			065	5.57	.67	<u>Atomic Absorption</u>		
<u>Cadmium</u>			368	0.40	-1.76	<u>Other</u>			057	5.55	.67	043	0.0012	1.25
<u>Atomic Absorption</u>			372	0.00	s -4.03	409	27.70	.71	231	5.51	.65	220	0.0008	.29
136	0.65	.71							247	5.50	.65	Avg	0.0006	
			<u>Meth: 190.99 PCT</u>			<u>Meth: 191.XX PPM</u>			393	5.36	.59	022	0.0005	-.19
<u>Meth: 181.30 PPM</u>			<u>Water Soluble Chlori</u>			<u>Chromium</u>			452	4.60	.28	428	0.0000	-1.35
<u>Cadmium</u>			<u>Other</u>			393	28.67	X 1.75	Avg	3.95				
<u>ICP</u>			009	0.49	.00	409	27.70	R 1.59	230	3.57	-.17	<u>Meth: 221.30 PCT</u>		
393	28.67	s 151.60				452	27.80	1.56	368	0.00	-1.64	<u>Acid Soluble Copper</u>		
444	0.85	1.42	<u>Meth: 191.00 PPM</u>			450	24.00	.71	232	0.00	-1.64	<u>ICP</u>		
247	0.88	1.06	<u>Chromium</u>			220	23.50	.57	372	0.00	-1.64	065	0.0034	s 4.98
065	0.83	X .97	<u>Atomic Absorption</u>			102	22.89	.42				354	0.0025	1.97
255	0.73	.28	220	23.50	.71	368	22.75	.39	<u>Meth: 202.99 PPM</u>			444	0.0025	1.97
452	0.70	.26				037	22.19	.39	<u>Acid Soluble Cobalt</u>			255	0.0021	1.27
102	0.72	.19				247	22.50	.35	<u>Other</u>			452	0.0020	1.09
Avg	0.68		<u>Meth: 191.30 PPM</u>			065	22.35	.32	409	7.06	-.71	402	0.0015	.83
009	0.65	-.32	<u>Chromium</u>			096	22.00	.32				422	0.0015	.83
230	0.51	-.93	<u>ICP</u>			009	21.45	.14	<u>Meth: 202.XX PPM</u>			057	0.0013	.71
450	0.55	-1.29	393	28.67	X 1.70	232	21.40	.12	<u>Acid Soluble Cobalt</u>			368	0.0014	.32
368	0.40	-1.61	452	27.80	1.51	Avg	21.06		136	12.00	R 3.19	095	0.0013	.24
372	0.00	S -3.69	450	24.00	.71	231	19.71	-.33	409	7.06	1.14	Avg	0.0012	
			102	22.89	.43									

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 221.30 PCT			Meth: 221.XX PCT			Meth: 241.30 PCT			Meth: 241.99 PCT			Meth: 241.XX PCT		
<u>Acid Soluble Copper</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>		
<u>ICP</u>			<u>ICP</u>			<u>ICP</u>			<u>Other</u>					
372	0.0010	-.22	220	0.0008	-.24	454	0.82	1.40	137	0.80	1.25	095	0.73	.01
230	0.0010	-.22	102	0.0008	-.24	106	0.81	1.31	231	0.72	.47	Avg	0.72	
232	0.0008	-.49	433	0.0007	-.27	432	0.80	1.16	Avg	0.68		177	0.71	-.25
231	0.0008	-.49	324	0.0005	-.61	389	0.81	1.14	042	0.60	-.76	029	0.71	-.29
102	0.0008	-.57	022	0.0005	-.61	131	0.77	.68	234	0.59	-1.07	200	0.71	-.33
450	0.0008	-.57	393	0.0004	-.83	390	0.77	.65				426	0.70	-.40
433	0.0007	-.60	454	0.0004	-.90	102	0.76	.60	Meth: 241.XX PCT			231	0.72	-.43
324	0.0005	-.84	041	0.0000	-1.64	324	0.77	.56	<u>Acid Soluble Iron</u>			023	0.70	-.50
393	0.0004	-1.00	428	0.0000	-1.64	450	0.73 R	.52	330	1.05 s	6.62	397	0.70	-.52
454	0.0004	-1.05	Meth: 241.00 PCT			354	0.76	.50	117	0.89	2.67	255	0.69	-.57
041	0.0000	-1.59	<u>Acid Soluble Iron</u>			372	0.76	.50	454	0.82	1.58	022	0.71	-.58
			<u>Atomic Absorption</u>			096	0.76	.47	106	0.81	1.47	232	0.70	-.62
			055	0.78	1.19	360	0.76	.45	432	0.80	1.31	057	0.68	-.76
			262	0.77	1.09	452	0.76	.41	389	0.81	1.29	371	0.68	-.80
			220	0.77	1.07	368	0.75	.39	137	0.80	1.21	393	0.68 X	-.81
			105	0.76	.92	422	0.74	.17	055	0.78	.81	040	0.67 X	-.86
			296	0.76	.92	291	0.74	.13	131	0.77	.79	433	0.67	-.94
			028	0.76	.83	Avg	0.73		390	0.77	.76	065	0.66	-1.02
			351	0.74	.37	095	0.73	-.04	262	0.77	.74	402	0.65	-1.15
			043	0.73	.28	307	0.73	-.36	220	0.77	.73	247	0.66	-1.16
			Avg	0.72		426	0.70	-.41	102	0.76	.70	444	0.65	-1.31
			177	0.71	-.28	023	0.70	-.50	324	0.77	.66	442	0.62	-1.73
			029	0.71	-.35	255	0.69	-.56	296	0.76	.62	428	0.64 R	-1.88
			200	0.71	-.40	232	0.70	-.60	105	0.76	.62	042	0.60	-1.99
			397	0.70	-.65	057	0.68	-.74	354	0.76	.59	027	0.59	-2.17
			022	0.71	-.76	393	0.68 X	-.78	372	0.76	.59	114	0.59	-2.19
			371	0.68	-1.05	433	0.67	-.91	450	0.73	.57	234	0.59 R	-2.43
			040	0.67 X	-1.13	065	0.66	-.98	096	0.76	.57	230	0.47 s	-4.08
			442	0.62	-2.33	402	0.65	-1.10	028	0.76	.56	157	0.43 s	-4.76
			428	0.64 R	-2.55	247	0.66	-1.11	360	0.76	.53	041	0.36 s	-5.97
			157	0.43 s	-6.52	444	0.65	-1.25	452	0.76	.49	Meth: 251.00 PPM		
			Meth: 241.30 PCT			027	0.59	-2.04	368	0.75	.47	Lead		
			<u>Acid Soluble Iron</u>			114	0.59	-2.05	307	0.73	.39	<u>Atomic Absorption</u>		
			<u>ICP</u>			230	0.47 s	-3.79	422	0.74	.24	136	8.50 S	.00
			330	1.05 s	6.04	041	0.36 s	-5.53	351	0.74	.22			
			117	0.89	2.41				291	0.74	.18			
									043	0.73	.18			

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 251.30 PPM			Meth: 261.00 PCT			Meth: 261.30 PCT			Meth: 261.XX PCT			Meth: 261.XX PCT		
<u>Lead</u>			<u>Acid Soluble Manganese</u>			<u>Acid Soluble Manganese</u>			<u>Acid Soluble Manganese</u>			<u>Acid Soluble Manganese</u>		
<u>ICP</u>			<u>AA</u>			<u>ICP</u>			200 5.035 s 257.06			029 0.232 -.33		
368	1.70	1.47	450	0.248	.26	368	0.238	.19	330	0.350 s	10.03	023	0.233	-.34
450	1.50 R	1.41	442	0.249	.23	095	0.241	.16	432	0.295 A	3.07	065	0.231	-.38
393	1.49	1.12	105	0.248	.16	009	0.241	.15	137	0.270	1.72	444	0.230	-.43
102	0.96	.33	Avg	0.247		Avg	0.237		390	0.265	1.48	022	0.231	-.44
Avg	0.82		397	0.247	-.20	452	0.235	-.25	220	0.260	1.18	232	0.232	-.54
230	0.60	-.37	351	0.245	-.30	023	0.233	-.26	409	0.257	1.02	231	0.225	-.74
452	0.42	-.67	055	0.245 R	-.55	065	0.231	-.29	157	0.257	.99	291	0.225	-.74
255	0.57	-.73	296	0.237	-1.03	444	0.230	-.33	372	0.256	.97	177	0.224	-.77
372	0.00	-1.36	177	0.224	-2.39	232	0.232	-.43	106	0.255	.95	393	0.222	-.84
			043	0.209 s	-3.86	291	0.225	-.59	028	0.255	.94	234	0.220 R	-1.44
						231	0.225	-.59	354	0.252	.89	117	0.210	-1.50
Meth: 251.99 PPM			Meth: 261.11 PCT			393 0.222 -.67			022 0.253 .85			043 0.209 -1.56		
<u>Lead</u>			<u>Acid Soluble Manganese</u>			433 0.208 -1.34			324 0.252 .77			433 0.208 -1.63		
<u>Other</u>			<u>AA</u>			027 0.200 -1.69			262 0.250 .65			042 0.204 -1.83		
409	1.26	.71	040	0.248 X	1.24	422	0.198	-1.76	442	0.249	.60	027	0.200	-2.06
			Avg	0.237		114	0.180	-2.57	247	0.247	.60	422	0.198	-2.14
Meth: 251.XX PPM			029 0.232 -.57			041 0.130 s -4.81			102 0.249 .59			114 0.180 -3.11		
<u>Lead</u>			022 0.231 -.80			Meth: 261.31 PCT			105 0.248 .56			230 0.162 s -4.08		
136 8.50 s 13.19						<u>Acid Soluble Manganese</u>			426 0.247 .55			041 0.130 s -5.78		
368 1.70 1.43						<u>ICP</u>			040 0.248 X .55			Meth: 271.00 PCT		
450 1.50 R 1.38						324 0.252 .87			450 0.248 .54			Water Soluble Mangan		
393 1.49 1.07						Avg 0.231			057 0.247 .52			<u>Atomic Abs</u>		
409 1.26 .67						117 0.210 -.86			454 0.246 .50			220 0.135 -.71		
102 0.96 .28						230 0.162 S -2.84			397 0.247 .50			Meth: 271.30 PCT		
Avg 0.87						Meth: 261.99 PCT			055 0.245 .46			Water Soluble Mangan		
230 0.60 -.48						<u>Acid Soluble Manganese</u>			402 0.246 .45			<u>ICP</u>		
452 0.42 -.79						137 0.270 1.23			351 0.245 .37			432 0.110 1.21		
255 0.57 -.82						409 0.257 .68			360 0.244 .33			Avg 0.106		
372 0.00 -1.51						Avg 0.241			360 0.244 .33			255 0.102 -.17		
Meth: 261.00 PCT			022 0.253 .74			037 0.239 -.18			131 0.243 .29			Meth: 271.XX PCT		
<u>Acid Soluble Manganese</u>			247 0.247 .53			255 0.234 -.30			037 0.239 .22			<u>Water Soluble Mangan</u>		
<u>AA</u>			102 0.249 .53			234 0.220 R -1.21			095 0.241 .16			220 0.135 .93		
200 5.035 s 483.80			426 0.247 .49			042 0.204 -1.55			009 0.241 .14			Avg 0.116		
220 0.260 1.30			057 0.247 .46						Avg 0.238			255 0.102 -.53		
157 0.257 .94			454 0.246 .44						296 0.237 -.05					
028 0.255 .89			402 0.246 .40						368 0.238 -.23					
262 0.250 .29			360 0.244 .30						255 0.234 -.24					
			131 0.243 .27						452 0.235 -.31					

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 271.XX PCT			Meth: 289.XX PPM			Meth: 291.30 PPM			Meth: 301.30 PPM			Meth: 321.30 PCT		
<u>Water Soluble Mangan</u>			<u>Molybdenum</u>			<u>Nickel</u>			<u>Selenium</u>			<u>Acid Soluble Zinc</u>		
432	0.110	-1.16	452	2.85	2.66	ICP			ICP			ICP		
			450	2.50 R	2.16	232	8.80	-.30	372	0.00	-1.28	450	0.006	.53
Meth: 281.30 PPM			409	2.07	.83	231	7.90	-.94	Meth: 311.99 PCT			354	0.006	.49
<u>Mercury</u>			247	1.90	.62	230	6.38	-2.03	<u>Sodium</u>			324	0.006	.19
<u>ICP</u>			231	1.95	.61	372	0.00 s	-6.57	<u>Other</u>			065	0.006	.07
372	0.00	.87	368	1.75	.13	Meth: 291.99 PPM			307	0.11	1.61	Avg	0.006	
Avg	0.00		Avg	1.73		<u>Nickel</u>			454	0.10 X	.87	102	0.006	-.07
450	0.00	-.87	433	1.66	-.16	<u>Other</u>			057	0.10	.10	037	0.006	-.18
Meth: 289.30 PPM			393	1.65	-.24	409	12.70	.71	102	0.10	.06	433	0.005	-.27
<u>Molybdenum</u>			102	1.64	-.26	Meth: 291.XX PPM			Avg	0.10		307	0.005	-.32
<u>ICP</u>			057	1.55	-.43	<u>Nickel</u>			232	0.09	-.62	454	0.005	-.39
452	2.85	2.69	065	1.54 X	-.65	452	22.63 s	6.20	422	0.09	-.73	232	0.005	-.50
450	2.50 R	2.19	220	1.40	-.76	444	14.41 R	2.60	450	0.08	-1.49	402	0.006	-.59
247	1.90	.66	232	1.65	-.84	136	14.00	2.06	Meth: 321.00 PCT			372	0.006	-.59
231	1.95	.66	255	1.39	-1.09	409	12.70	1.45	<u>Acid Soluble Zinc</u>			393	0.005 X	-.78
368	1.75	.17	230	1.17	-1.31	450	11.00	.73	<u>Atomic Absorption</u>			255	0.005	-1.27
Avg	1.70		454	0.00 s	-4.04	247	10.40	.27	105	0.010 s	4.55	027	0.004	-1.83
433	1.66	-.09	372	0.00 s	-4.04	Avg	9.89		022	0.007	1.49	230	0.004	-1.83
393	1.65	-.20	Meth: 291.00 PPM			065	9.57	-.15	Meth: 321.00 PCT			Meth: 321.XX PCT		
102	1.64	-.22	<u>Nickel</u>			368	9.60	-.17	<u>Acid Soluble Zinc</u>			<u>Acid Soluble Zinc</u>		
057	1.55	-.36	<u>Atomic Absorption</u>			102	9.46	-.21	Avg	0.006		368	0.014 s	10.38
065	1.54 X	-.60	136	14.00	.89	037	9.84	-.28	296	0.005	-.47	105	0.010 s	6.30
220	1.40	-.69	Avg	11.50		220	9.00	-.52	220	0.005	-.47	041	0.008 s	4.55
232	1.65	-.82	220	9.00	-.85	220	9.00	-.52	428	0.005	-1.08	390	0.008 s	3.72
255	1.39	-1.04	Meth: 291.30 PPM			232	8.80	-.53	Meth: 321.30 PCT			022	0.007 R	2.25
230	1.17	-1.24	<u>Nickel</u>			231	7.90	-.97	<u>Acid Soluble Zinc</u>			057	0.007 R	2.11
454	0.00 S	-3.94	<u>ICP</u>			230	6.38	-1.71	<u>ICP</u>			409	0.007	1.80
372	0.00 S	-3.94	452	22.63 s	9.57	372	0.00 s	-4.80	368	0.014 s	10.23	444	0.007	1.69
Meth: 289.99 PPM			444	14.41 R	4.22	Meth: 301.30 PPM			041	0.008 s	4.48	096	0.007	1.45
<u>Molybdenum</u>			450	11.00	1.46	<u>Selenium</u>			390	0.008 s	3.66	043	0.007	1.42
<u>Other</u>			247	10.40	.86	<u>ICP</u>			057	0.007 R	2.07	231	0.007	1.26
409	2.07	.71	037	9.84	.60	393	1.42	1.31	409	0.007	1.76	452	0.006	.59
			368	9.60	.31	368	0.85	.28	444	0.007	1.65	450	0.006	.54
			065	9.57	.26	Avg	0.71		096	0.007	1.42	354	0.006	.51
			102	9.46	.17	230	0.56	-.27	231	0.007	1.24	324	0.006	.20
			Avg	9.22		450	0.50 R	-.98	452	0.006	.58	065	0.006	.08

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

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>
Meth: 321.XX PCT											
<u>Acid Soluble Zinc</u>											
102	0.006	-.06									
037	0.006	-.18									
433	0.005	-.26									
296	0.005	-.31									
307	0.005	-.31									
220	0.005	-.31									
454	0.005	-.39									
232	0.005	-.50									
402	0.006	-.59									
372	0.006	-.59									
393	0.005 X	-.78									
428	0.005	-1.08									
255	0.005	-1.28									
027	0.004	-1.85									
230	0.004	-1.85									

Meth: 325.30 PCT		
<u>Water Soluble Zinc</u>		
<u>ICP</u>		
095	0.016	.71

\* 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	7	0.00	1.04	0.07	050.99	18	- 0.18	1.27	0.25
001.99	9	1.32	3.00	0.05	050.XX	78	- 0.08	1.37	0.34
001.XX	16	0.95	3.00	0.05	060.00	5	0.00	1.02	0.25
003.10	7	0.00	1.04	0.10	060.XX	6	0.00	1.03	0.17
003.XX	8	0.00	1.03	0.10	101.30	19	- 0.09	4.17	0.20
005.00	3	0.00	1.12	0.03	101.XX	20	- 0.09	4.20	0.20
005.99	3	0.00	1.12	0.02	121.30	20	- 0.11	1.74	0.34
005.XX	6	0.00	1.05	0.02	121.XX	21	- 0.25	1.82	0.49
009.10	3	0.00	1.12	0.00	144.01	17	- 1.20	3.84	0.35
009.XX	3	0.00	1.12	0.00	144.99	28	0.16	1.27	0.20
010.11	10	0.55	1.98	0.23	144.XX	46	- 0.10	1.57	0.20
010.12	5	2.62	3.68	0.18	151.00	2	0.00	1.12	0.35
010.60	64	0.57	2.35	0.74	151.30	7	0.66	1.90	0.34
010.99	5	- 1.32	3.06	0.41	151.XX	10	0.62	2.02	0.35
010.XX	81	0.53	2.42	0.81	165.99	6	0.362	1.293	0.481
020.10	6	- 1.27	3.23	1.40	165.XX	6	0.362	1.293	0.481
020.20	21	- 1.41	3.08	0.73	181.30	12	12.33	43.88	0.51
020.40	4	0.00	0.92	0.49	181.XX	14	11.54	44.36	0.53
020.50	15	0.14	1.06	0.58	191.30	17	0.00	0.98	0.16
020.99	3	0.00	0.00	0.00	191.XX	19	0.08	1.03	0.19
020.XX	47	- 0.70	3.20	0.71	202.30	13	0.07	1.01	0.05
030.20	2	0.00	1.19	0.20	202.XX	15	0.21	1.28	0.12
030.XX	5	1.24	2.93	0.36	221.00	4	0.0000	1.0747	0.0935
040.40	2	0.00	0.40	0.82	221.30	21	0.1496	1.1495	0.9112
040.XX	5	0.00	1.05	0.11	221.XX	26	0.5482	1.5200	1.1274
041.10	13	- 0.09	1.00	0.49	241.00	18	- 0.46	1.81	0.51
041.40	4	- 10.66	12.36	0.54	241.30	36	- 0.13	1.67	0.64
041.50	13	0.00	0.99	0.24	241.99	4	0.00	1.01	0.32
041.60	12	- 0.20	0.96	1.15	241.XX	58	- 0.23	1.65	0.61
041.99	2	- 16.40	23.20	4.33	251.30	8	0.14	1.01	0.38
041.XX	35	- 0.85	2.39	0.82	251.XX	10	1.42	4.23	0.44
048.20	3	0.00	1.11	0.10	261.00	14	34.266	129.39	0.457
048.XX	4	0.00	1.07	0.11	261.11	3	0.000	1.060	0.291
050.00	16	- 0.27	1.45	0.48	261.30	31	0.008	1.593	1.222
050.30	11	0.31	1.33	0.81	261.31	3	- 0.944	1.848	0.159
050.50	8	0.00	1.03	0.08	261.99	6	- 0.145	1.007	0.358
050.51	12	0.00	1.01	0.18	261.XX	56	4.555	34.394	1.108
050.60	8	0.00	1.01	0.23	271.30	2	0.000	0.230	0.851
050.61	12	- 0.70	2.61	0.31	271.XX	3	0.000	0.657	0.738

## 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
281.30	2	0.00	1.22	0.00					
281.XX	2	0.00	1.22	0.00					
289.30	16	- 0.38	1.69	0.45					
289.XX	17	- 0.37	1.68	0.45					
291.00	2	0.00	1.16	0.27					
291.30	12	0.56	3.72	0.65					
291.XX	15	0.24	2.33	0.44					
301.30	5	- 0.07	0.94	0.42					
301.XX	5	- 0.07	0.94	0.42					
311.99	7	0.00	0.98	0.32					
311.XX	7	0.00	0.98	0.32					
321.00	6	0.614	1.728	1.155					
321.30	25	0.690	2.298	0.983					
321.XX	31	0.796	2.292	1.120					