

- Pass 1 Results for 85 Labs - - Pass 2 Results for 85 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	10	4.08	0.19	0.03	9	4.05	0.17	0.02
Ammoniacal Nitrogen, Other		001.99	9	4.22	0.10	0.03	9	4.22	0.10	0.03
Method Group 001.XX PCT			20	4.12	0.19	0.03	19	4.11	0.19	0.02
Nitrate Nitrogen, Jones Modified	930.02	002.20	3	1.93	0.38	0.20	3	1.93	0.38	0.20
Nitrate Nitrogen, Other		002.99	8	1.67	0.43	0.07	7	1.63	0.43	0.03
Method Group 002.XX PCT			11	1.74	0.42	0.11	10	1.72	0.43	0.08
Ammon & Nitrate N, Devarda	892.01	009.10	5	6.19	0.14	0.07	4	6.16	0.10	0.02
Ammon & Nitrate N, Other		009.99	2	6.23	0.03	0.02	2	6.23	0.03	0.02
Method Group 009.XX PCT			7	6.20	0.12	0.06	6	6.18	0.09	0.02
Total Nitrogen, Modified Comprehensive	978.02	010.11	5	5.91	0.15	0.06	5	5.91	0.15	0.06
Total Nitrogen, Salicylic	955.04D	010.12	5	6.01	0.18	0.06	5	6.01	0.18	0.06
Total Nitrogen, Combustion		010.60	55	6.13	0.12	0.05	52	6.12	0.12	0.04
Total Nitrogen, Other		010.99	6	6.09	0.22	0.06	5	6.02	0.17	0.03
Method Group 010.XX PCT			73	6.09	0.17	0.05	68	6.08	0.15	0.04
Total Phosphate, Grav Quimociac	962.02	020.10	8	13.31	0.28	0.15	8	13.31	0.28	0.15
Total Phosphate, Spectrometric	958.01	020.20	15	13.27	0.44	0.11	15	13.27	0.44	0.11
Total Phosphate, Automated	978.01	020.40	7	13.24	0.18	0.08	7	13.24	0.18	0.08
Total Phosphate, ICP		020.50	14	13.27	0.84	0.20	14	13.27	0.84	0.20
Total Phosphate, Other		020.99	4	13.29	0.76	0.30	4	13.29	0.76	0.30
Method Group 020.XX PCT			48	13.28	0.56	0.16	46	13.25	0.55	0.14
Insoluble Phosphate, Grav Quimociac	963.03C	030.10	1	0.04	0.00	0.00	1	0.04	0.00	0.00
Insoluble Phosphate, Spectrometric	963.03C	030.20	2	0.06	0.03	0.03	2	0.06	0.03	0.03
Insoluble Phosphate, Automated	978.01	030.40	1	0.07	0.00	0.00	1	0.07	0.00	0.00
Insoluble Phosphate, ICP		030.50	1	0.03	0.00	0.00	1	0.03	0.00	0.00
Insoluble Phosphate, Other		030.99	1	0.03	0.00	0.00	1	0.03	0.00	0.00
Method Group 030.XX PCT			6	0.05	0.02	0.01	5	0.04	0.02	0.00
InDir Available Phosphate, Grav Quim	960.02	040.10	1	13.29	0.03	0.04	1	13.29	0.03	0.04
InDir Available Phosphate, Spectrometri	960.02	040.20	3	13.25	0.36	0.27	3	13.25	0.36	0.27
InDir Available Phosphate, Automated	960.02	040.40	1	13.25	0.04	0.05	1	13.25	0.04	0.05
InDir Available Phosphate, ICP		040.50	1	12.19	0.12	0.17	1	12.19	0.12	0.17
InDir Available Phosphate, Other		040.99	1	13.25	0.35	0.50	1	13.25	0.35	0.50
Method Group 040.XX PCT			7	13.10	0.46	0.22	7	13.10	0.46	0.22
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	13	13.24	0.12	0.06	13	13.24	0.12	0.06
Dir Available Phosphate, Spectrometric	960.03D	041.20	3	13.07	0.22	0.11	3	13.07	0.22	0.11
Dir Available Phosphate, Automated	978.01	041.40	4	13.20	0.22	0.07	4	13.20	0.22	0.07
Dir Available Phosphate, ICP		041.50	9	13.32	0.13	0.12	9	13.32	0.13	0.12
Dir Available Phosphate, EDTA Extract	993.01	041.60	9	13.32	0.15	0.07	9	13.32	0.15	0.07
Dir Available Phosphate, Other		041.99	2	13.33	0.44	0.13	2	13.33	0.44	0.13
Method Group 041.XX PCT			40	13.26	0.18	0.09	40	13.26	0.18	0.09

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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
Water Soluble Phosphate, Spectrometric	970.01	048.20	5	10.79	0.56	0.12	5	10.79	0.56	0.12
Water Soluble Phosphate, ICP		048.50	1	9.99	0.06	0.09	1	9.99	0.06	0.09
Water Soluble Phosphate, Other		048.99	1	9.79	0.03	0.04	1	9.79	0.03	0.04
Method Group 048.XX PCT			7	10.53	0.63	0.11	7	10.53	0.63	0.11
Soluble Potash, STPB Oxalate	958.02	050.00	16	11.46	0.31	0.10	15	11.47	0.31	0.07
Soluble Potash, STPB Citrate	969.04	050.10	2	11.55	0.33	0.06	2	11.55	0.33	0.06
Soluble Potash, AA (Oxalate)		050.30	5	11.30	0.26	0.08	5	11.30	0.26	0.08
Soluble Potash, AA (Citrate)		050.31	2	11.61	0.95	0.07	2	11.61	0.95	0.07
Soluble Potash, ICP (Oxalate)		050.50	10	11.60	0.45	0.17	10	11.60	0.45	0.17
Soluble Potash, ICP (Citrate)		050.51	10	11.50	0.52	0.14	9	11.54	0.54	0.10
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	5	11.58	0.25	0.06	5	11.58	0.25	0.06
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	9	11.54	0.18	0.12	9	11.54	0.18	0.12
Soluble Potash, Other		050.99	18	11.56	0.53	0.13	18	11.56	0.53	0.13
Method Group 050.XX PCT			77	11.52	0.42	0.12	73	11.54	0.43	0.10
Free Water, Vacuum Oven	965.08B	060.00	8	0.80	0.20	0.02	7	0.83	0.19	0.01
Method Group 060.XX PCT			8	0.80	0.20	0.02	7	0.83	0.19	0.01
Acid Soluble Calcium, AA	945.04	101.00	9	6.66	0.20	0.15	8	6.69	0.17	0.10
Acid Soluble Calcium, ICP		101.30	36	6.64	0.41	0.12	35	6.64	0.41	0.10
Acid Soluble Calcium, Other		101.99	4	6.40	0.53	0.13	4	6.40	0.53	0.13
Method Group 101.XX PCT			50	6.61	0.41	0.14	47	6.63	0.40	0.10
Acid Soluble Magnesium, AA	984.01	121.00	11	2.89	0.12	0.08	11	2.89	0.12	0.08
Acid Soluble Magnesium, ICP		121.30	40	2.96	0.14	0.06	37	2.97	0.13	0.05
Acid Soluble Magnesium, Other		121.99	4	2.96	0.14	0.08	4	2.96	0.14	0.08
Method Group 121.XX PCT			55	2.95	0.14	0.07	53	2.94	0.14	0.06
Water Soluble Magnesium, AA		131.00	2	2.56	0.12	0.05	2	2.56	0.12	0.05
Water Soluble Magnesium, ICP		131.30	3	2.76	0.19	0.10	3	2.76	0.19	0.10
Water Soluble Magnesium, Other		131.99	2	2.85	0.06	0.05	2	2.85	0.06	0.05
Method Group 131.XX PCT			7	2.73	0.17	0.07	7	2.73	0.17	0.07
Sulfur, Gravimetric	980.02a	144.01	13	11.08	0.20	0.09	13	11.08	0.20	0.09
Sulfur, Gravimetric	980.02b	144.02	1	11.81	0.04	0.05	1	11.81	0.04	0.05
Sulfur, Spectrometric		144.70	1	11.45	0.41	0.58	1	11.45	0.41	0.58
Sulfur, Other		144.99	27	10.98	0.50	0.18	25	10.94	0.56	0.12
Method Group 144.XX PCT			42	11.04	0.44	0.16	38	11.05	0.43	0.10
Arsenic, ICP		151.30	7	4.68	1.72	0.62	6	4.20	1.15	0.21
Arsenic, Other		151.99	1	4.92	0.14	0.20	1	4.92	0.14	0.20
Method Group 151.XX PPM			8	4.71	1.60	0.57	7	4.30	1.09	0.21
Acid Soluble Boron, Spectrometric	982.01	165.00	4	0.232	0.030	0.023	4	0.232	0.030	0.023
Acid Soluble Boron, Other		165.99	26	0.220	0.025	0.009	25	0.220	0.025	0.008
Method Group 165.XX PCT			30	0.222	0.025	0.011	29	0.220	0.024	0.009

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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
Water Soluble Boron, Other		171.99	1	0.240	0.000	0.000	1	0.240	0.000	0.000
Cadmium, Atomic Absorption		181.00	1	11.33	0.01	0.01	1	11.33	0.01	0.01
Cadmium, ICP		181.30	14	9.72	1.25	0.49	14	9.72	1.25	0.49
Cadmium, Other		181.99	1	9.88	0.04	0.05	1	9.88	0.04	0.05
Method Group 181.XX PPM			16	9.83	1.23	0.43	16	9.83	1.23	0.43
Water Soluble Chlorine, Titrimetric	928.02	190.00	8	1.45	0.12	0.03	8	1.45	0.12	0.03
Water Soluble Chlorine, Other		190.99	4	0.86	0.92	0.03	4	0.86	0.92	0.03
Method Group 190.XX PCT			13	1.20	0.60	0.04	12	1.25	0.59	0.03
Chromium, ICP		191.30	13	136.29	28.24	4.56	12	136.06	29.34	3.64
Chromium, Other		191.99	1	74.39	0.58	0.82	1	74.39	0.58	0.82
Method Group 191.XX PPM			15	138.64	40.13	5.81	14	131.87	31.65	4.29
Acid Soluble Cobalt, AA		202.00	1	4.50	0.71	1.00	1	4.50	0.71	1.00
Acid Soluble Cobalt, ICP	965.11	202.30	13	24.97	8.11	1.98	12	24.14	7.73	1.32
Acid Soluble Cobalt, Other		202.99	1	5.96	0.30	0.42	1	5.96	0.30	0.42
Method Group 202.XX PPM			15	22.34	10.17	1.81	14	21.44	9.82	1.23
Acid Soluble Copper, Atomic Absorption	975.01	221.00	3	0.0048	0.0004	0.0003	3	0.0048	0.0004	0.0003
Acid Soluble Copper, ICP		221.30	19	0.0050	0.0009	0.0003	17	0.0049	0.0007	0.0002
Acid Soluble Copper, Other		221.99	1	0.0047	0.0001	0.0001	1	0.0047	0.0001	0.0001
Method Group 221.XX PCT			23	0.0050	0.0009	0.0003	21	0.0049	0.0007	0.0002
Acid Soluble Iron, Atomic Absorption	980.01	241.00	11	0.57	0.04	0.01	11	0.57	0.04	0.01
Acid Soluble Iron, ICP		241.30	38	0.53	0.05	0.02	36	0.54	0.05	0.01
Method Group 241.XX PCT			50	0.54	0.06	0.02	48	0.54	0.05	0.01
Lead, ICP		251.30	11	6.37	1.37	0.43	11	6.37	1.37	0.43
Lead, Other		251.99	1	5.48	0.04	0.06	1	5.48	0.04	0.06
Method Group 251.XX PPM			12	6.30	1.33	0.40	12	6.30	1.33	0.40
Acid Soluble Manganese, AA	972.02a	261.00	8	0.522	0.024	0.010	7	0.527	0.020	0.007
Acid Soluble Manganese, AA	972.02b	261.11	1	0.489	0.021	0.030	1	0.489	0.021	0.030
Acid Soluble Manganese, ICP		261.30	32	0.517	0.039	0.014	30	0.518	0.038	0.011
Acid Soluble Manganese, ICP	972.02b	261.31	1	0.521	0.004	0.005	1	0.521	0.004	0.005
Acid Soluble Manganese, Other		261.99	5	0.486	0.045	0.012	5	0.486	0.045	0.012
Method Group 261.XX PCT			47	0.514	0.038	0.014	43	0.515	0.030	0.011
Mercury, Atomic Absorption		281.00	1	0.01	0.00	0.00	1	0.01	0.00	0.00
Mercury, Other		281.99	1	0.01	0.00	0.00	1	0.01	0.00	0.00
Method Group 281.XX PPM			2	0.01	0.00	0.00	2	0.01	0.00	0.00
Molybdenum, ICP		289.30	15	8.55	2.98	0.49	14	8.52	3.06	0.30
Molybdenum, Other		289.99	2	3.55	4.10	0.11	2	3.55	4.10	0.11
Method Group 289.XX PPM			17	7.96	3.46	0.45	16	7.90	3.54	0.28
Nickel, ICP		291.30	14	42.52	6.98	2.79	13	42.48	7.04	2.07
Nickel, Other		291.99	2	22.44	10.15	0.36	2	22.44	10.15	0.36

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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
Method Group 291.XX PPM			16	40.01	9.89	2.49	15	39.81	10.07	1.84
Selenium, ICP		301.30	2	1.87	1.01	0.11	2	1.87	1.01	0.11
Selenium, Other		301.99	1	2.36	0.28	0.39	1	2.36	0.28	0.39
Method Group 301.XX PPM			3	2.03	0.83	0.20	3	2.03	0.83	0.20
Sodium, Other		311.99	9	0.53	0.04	0.01	9	0.53	0.04	0.01
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	10	0.387	0.022	0.013	9	0.390	0.020	0.009
Acid Soluble Zinc, ICP		321.30	40	0.384	0.026	0.013	38	0.383	0.025	0.011
Acid Soluble Zinc, Other		321.99	2	0.383	0.037	0.037	2	0.383	0.037	0.037
Method Group 321.XX PCT			52	0.384	0.025	0.014	47	0.383	0.022	0.010
Water Soluble Zinc, ICP		325.30	1	0.070	0.014	0.020	1	0.070	0.014	0.020

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 001.10 PCT														
Ammoniacal Nitrogen														
MgO Distillation	096	4.23	096	4.23	.69									
258	4.35 R	1.76	420	4.22	.57									
444	4.30	1.46	397	4.20	.49									
090	4.18	.77	090	4.18	.39									
232	4.12	.43	232	4.12	.12									
470	4.11	.33	Avg	4.11										
351	4.09	.22	470	4.11	-.03									
456	4.09	.22	372	4.09	-.11									
Avg	4.05		351	4.09	-.12									
230	3.97	-.44	456	4.09	-.13									
330	3.90	-.85	027	4.02	-.50									
309	3.68	-2.11	230	3.97	-.74									
Meth: 001.99 PCT														
Ammoniacal Nitrogen														
Other	471	5.44 s	476	3.70	-2.18									
471	5.44 s	12.04	309	3.68	-2.29									
393	4.34 X	1.17												
473	4.30	.85												
105	4.30	.85												
419	4.26	.41												
096	4.23	.31												
Avg	4.22													
420	4.22	-.15												
397	4.20	-.15												
372	4.09	-1.23												
027	4.02	-1.96												
476	3.70 s	-5.05												
Meth: 002.20 PCT														
Nitrate Nitrogen														
Jones Modified	230	2.32	090	6.19	.34									
230	2.32	1.04	Avg	6.16										
029	1.97	.17	470	6.00	-1.58									
Avg	1.93		309	4.67 S	-15.16									
117	1.50	-1.17												
Meth: 002.99 PCT														
Nitrate Nitrogen														
Other	258	2.00 R	444	6.25	.94									
258	2.00 R	.98	Avg	6.23										
476	2.00	.86	105	6.21	-.78									
027	1.94	.71												
393	1.90	.63												
419	1.85	.52												
232	1.75	.28												
Avg	1.63													
420	0.99	-1.48												
444	4.30	1.03												
105	4.30	1.03												
473	4.30	1.01												
419	4.26	.78												
Meth: 001.XX PCT														
Ammoniacal Nitrogen														
471	5.44 s	7.13												
258	4.35 R	1.31												
393	4.34 X	1.21												
444	4.30	1.03												
105	4.30	1.03												
473	4.30	1.01												
419	4.26	.78												
Meth: 002.XX PCT														
Nitrate Nitrogen														
230	2.32	1.41												
258	2.00 R	.80												
476	2.00	.65												
029	1.97	.60												
027	1.94	.50												
393	1.90	.42												
419	1.85	.31												
232	1.75	.07												
Avg	1.72													
117	1.50	-.60												
420	0.99	-1.69												
471	0.98	-1.73												
Meth: 009.10 PCT														
Ammon & Nitrate N														
Devarda	258	6.35 R	393	6.23 X	.83									
258	6.35 R	2.50	397	6.20	.46									
393	6.23 X	.83	090	6.19	.34									
397	6.20	.46	Avg	6.16										
090	6.19	.34	470	6.00	-1.58									
Avg	6.16		309	4.67 S	-15.16									
470	6.00	-1.58												
309	4.67 S	-15.16												
Meth: 009.99 PCT														
Ammon & Nitrate N														
Other	444	6.25	444	6.25	.94									
444	6.25	.94	Avg	6.23										
Avg	6.23		105	6.21	-.78									
105	6.21	-.78												
Meth: 009.XX PCT														
Ammon & Nitrate N														
258	2.00 R	.98												
476	2.00	.86												
027	1.94	.71												
393	1.90	.63												
419	1.85	.52												
232	1.75	.28												
Avg	1.63													
420	0.99	-1.48												
444	4.30	1.03												
105	4.30	1.03												
473	4.30	1.01												
419	4.26	.78												
Meth: 010.11 PCT														
Total Nitrogen														
Modified Comprehensive	105	6.01	105	6.01	.81									
105	6.01	.81	211	6.02	.77									
211	6.02	.77	309	5.94	.22									
309	5.94	.22	460	5.92	.12									
460	5.92	.12	Avg	5.91										
Avg	5.91		260	5.65	-1.79									
260	5.65	-1.79	474	3.02 S	-19.47									
474	3.02 S	-19.47	114	2.97 S	-19.81									
114	2.97 S	-19.81												
Meth: 010.12 PCT														
Total Nitrogen														
Salicylic	254	6.25	254	6.25	1.38									
254	6.25	1.38	185	6.13	.65									
185	6.13	.65	Avg	6.01										
Avg	6.01		416	6.00 X	-.05									
416	6.00 X	-.05	455	5.88	-.76									
455	5.88	-.76	117	5.80	-1.27									
117	5.80	-1.27												
Meth: 010.60 PCT														
Total Nitrogen														
Combustion	043	6.45	043	6.45	2.76									
043	6.45	2.76	230	6.32 R	1.99									
230	6.32 R	1.99	360	6.23 R	1.25									
360	6.23 R	1.25	072	6.26	1.17									
072	6.26	1.17	042	6.22 R	1.12									
042	6.22 R	1.12	096	6.25	1.09									
096	6.25	1.09	275	6.25	1.04									
275	6.25	1.04	029	6.23	1.03									
029	6.23	1.03												

* 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														
Total Nitrogen														
Combustion	275	6.25	1.07											
450	6.05	-1.59												
325	6.05	-1.60												
131	6.01	-1.93												
444	6.01	-1.93												
390	6.01	-1.99												
426	6.00	-1.09												
102	5.95	-1.44												
372	5.90	-1.89												
291	5.84	-2.36												
157	5.82	-2.56												
443	5.80	-2.69												
027	5.68 s	-3.74												
452	5.64 s	-4.02												
420	5.14 s	-8.22												
Meth: 010.99 PCT														
Total Nitrogen														
Other	231	6.16	.51											
471	6.42 R	2.37												
419	6.11	.53												
105	6.11	.49												
300	6.11	.49												
030	6.10	.44												
Avg	6.02													
476	5.70	-1.88												
072	4.19 S	-10.75												
Meth: 010.XX PCT														
Total Nitrogen														
043	6.45	2.42												
471	6.42 R	2.28												
230	6.32 R	1.78												
360	6.23 R	1.18												
072	6.26	1.17												
254	6.25	1.15												
096	6.25	1.10												
042	6.22 R	1.07												
Meth: 010.XX PCT														
Total Nitrogen														
275	6.25	1.07												
029	6.23	1.03												
035	6.23	.97												
389	6.23	.95												
055	6.22	.91												
393	6.22	.91												
402	6.22	.90												
024	6.22	.90												
070	6.21	.81												
354	6.20	.78												
095	6.20	.74												
422	6.19	.72												
049	6.19	.72												
041	6.19	.68												
377	6.18	.63												
023	6.17	.59												
007	6.15	.55												
330	6.15	.55												
231	6.16	.51												
247	6.14	.50												
009	6.15	.46												
086	6.15	.43												
117	6.15	.42												
292	6.14	.38												
351	6.12	.33												
296	6.13	.32												
406	6.13	.30												
185	6.13	.28												
419	6.11	.27												
037	6.12	.26												
233	6.11	.21												
177	6.10	.19												
232	6.10	.19												
105	6.11	.18												
300	6.11	.15												
030	6.10	.11												
324	6.10	.11												
136	6.09	.10												
Meth: 010.XX PCT														
Total Nitrogen														
095	6.09	.04												
Avg	6.08													
018	6.08	-1.07												
040	6.08	-1.07												
450	6.05	-1.22												
325	6.05	-1.23												
028	6.08	-1.24												
234	6.08	-1.30												
211	6.02	-1.41												
444	6.01	-1.48												
131	6.01	-1.48												
416	6.00 X	-1.55												
390	6.01	-1.55												
105	6.01	-1.62												
426	6.00	-1.64												
102	5.95	-1.88												
309	5.94	-1.98												
460	5.92	-1.11												
372	5.90	-1.24												
455	5.88	-1.38												
291	5.84	-1.61												
157	5.82	-1.76												
443	5.80	-1.86												
117	5.80	-1.96												
476	5.70	-2.52												
027	5.68	-2.69												
260	5.65 A	-2.89												
452	5.64	-2.91												
420	5.14 s	-6.21												
072	4.19 s	-12.51												
474	3.02 s	-20.22												
114	2.97 s	-20.55												
Meth: 020.10 PCT														
Total Phosphate														
Grav Quimociac	041	13.37	.20											
090	13.33	.09												
Avg	13.31													
470	13.15	-1.59												
157	13.15	-1.61												
105	13.27	-1.65												
117	12.92	-1.63												
Meth: 020.20 PCT														
Total Phosphate														
Spectrometric	324	13.85	1.36											
460	13.71	1.00												
292	13.56	.64												
473	13.52	.60												
406	13.43	.37												
474	13.30	.30												
231	13.40	.29												
450	13.39	.26												
419	13.28	.18												
232	13.31	.15												
Avg	13.27													
258	13.26	-1.11												
363	13.23	-1.12												
416	13.20 X	-1.16												
234	12.66	-1.41												
420	12.00	-2.90												
309	7.19 s	-18.59												
Meth: 020.40 PCT														
Total Phosphate														
Automated	095	13.56	1.86											
096	13.32	.47												
247	13.30	.36												
Avg	13.24													
042	13.20	-.27												
Meth: 020.50 PCT														
Total Phosphate														
ICP	422	14.82	1.85											
330	14.45	1.44												
452	13.92	.78												
247	13.81	.64												
157	13.65	.45												
390	13.50	.45												
402	13.54	.38												
389	13.47	.23												
Avg	13.27													
Meth: 020.99 PCT														
Total Phosphate														
Other	476	16.30 S	3.99											
443	14.31	1.39												
471	13.45	.39												
Avg	13.29													
455	12.95	-.45												
322	12.44	-1.10												
Meth: 020.XX PCT														
Total Phosphate														
476	16.30 s	5.62												
422	14.82	2.86												

* 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	
Meth: 020.XX PCT												
<u>Total Phosphate</u>												
330	14.45	2.23										
443	14.31 R	2.00										
452	13.92	1.23										
324	13.85	1.13										
247	13.81	1.02										
444	13.79	1.00										
460	13.71	.84										
157	13.65	.74										
390	13.50 R	.71										
402	13.54	.62										
471	13.45	.58										
095	13.56	.58										
292	13.56	.56										
114	13.54	.53										
473	13.52	.52										
389	13.47	.40										
406	13.43	.33										
105	13.27	.32										
231	13.40	.28										
474	13.30	.25										
450	13.39	.25										
041	13.37	.22										
419	13.28	.16										
090	13.33	.15										
232	13.31	.14										
096	13.32	.13										
247	13.30	.09										
258	13.26	.08										
Avg	13.25											
363	13.23	-.07										
416	13.20 X	-.09										
042	13.20	-.11										
470	13.15	-.18										
157	13.15	-.20										
105	13.16	-.27										
035	13.08	-.31										
456	13.05	-.37										
455	12.95	-.55										
Meth: 020.XX PCT												
<u>Total Phosphate</u>												
117	12.92	-.73										
432	12.77	-.87										
234	12.66	-1.08										
393	12.65	-1.09										
426	12.54	-1.34										
322	12.44	-1.46										
307	12.30	-1.73										
255	12.22	-1.88										
444	12.20	-1.91										
420	12.00	-2.28										
309	7.19 s	-14.83										
Meth: 030.XX PCT												
<u>Insoluble Phosphate</u>												
474	0.08 R	2.53										
096	0.07	1.70										
473	0.05	.35										
Avg	0.04											
090	0.04	-.15										
247	0.03	-.76										
255	0.03	-.95										
Meth: 040.10 PCT												
<u>InDir Available Phos</u>												
090	13.29	.71										
Meth: 030.10 PCT												
<u>Insoluble Phosphate</u>												
474	0.08	1.08										
Avg	0.06											
473	0.05	-.58										
Meth: 030.40 PCT												
<u>Insoluble Phosphate</u>												
096	0.07	.00										
Meth: 040.50 PCT												
<u>InDir Available Phos</u>												
255	12.19	.71										
Meth: 040.99 PCT												
<u>InDir Available Phos</u>												
Other												
247	13.25	.71										
Meth: 040.20 PCT												
<u>Dir Available Phosph</u>												
136	13.56	1.65										
397	13.50	1.21										
018	13.40	.87										
177	13.34	.25										
Avg	13.32											
037	13.27	-.36										
043	13.25	-.50										
233	13.28	-.51										
024	13.21	-.83										
351	13.11	-1.47										
Meth: 041.50 PCT												
<u>Dir Available Phosph</u>												
ICP												
325	13.85 S	4.23										
452	13.46	1.33										
007	13.42	1.03										
040	13.35	.98										
360	13.43	.93										
Avg	13.32											
055	13.31	-.37										
043	13.30	-.54										
377	13.26	-.65										
291	13.21	-.86										
023	13.13	-1.51										
009	12.72 S	-4.79										
393	12.42 S	-7.09										
354	12.00 S	-10.40										
Meth: 041.60 PCT												
<u>Dir Available Phosph</u>												
EDTA Extract												
136	13.56	1.65										
397	13.50	1.21										
018	13.40	.87										
177	13.34	.25										
Avg	13.32											
037	13.27	-.36										
043	13.25	-.50										
233	13.28	-.51										
024	13.21	-.83										
351	13.11	-1.47										

* 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
Meth: 041.99 PCT											
Dir Available Phosph											
Other	105	13.20	-0.39								
275	13.70	0.87									
Avg	13.33										
230	12.95	-0.86									
Meth: 041.XX PCT											
Dir Available Phosph											
325	13.85 s	3.26									
275	13.70	2.45									
136	13.56	1.65									
055	13.49	1.33									
397	13.50	1.31									
452	13.46	1.18									
007	13.42	0.96									
018	13.40	0.94									
360	13.43	0.93									
040	13.35	0.82									
029	13.41	0.82									
211	13.40	0.75									
254	13.34	0.53									
177	13.34	0.44									
363	13.30	0.42									
043	13.30	0.40									
233	13.28	0.34									
055	13.31	0.34									
037	13.27	0.09									
027	13.27	0.03									
Avg	13.26										
043	13.25	-0.09									
177	13.25	-0.11									
131	13.25	-0.11									
072	13.24	-0.16									
131	13.24	-0.16									
185	13.24	-0.21									
009	13.22	-0.26									
291	13.21	-0.32									
377	13.26	-0.33									
024	13.21	-0.35									
Meth: 041.XX PCT											
Dir Available Phosph											
325	13.85 s	3.26									
275	13.70	2.45									
136	13.56	1.65									
055	13.49	1.33									
397	13.50	1.31									
452	13.46	1.18									
007	13.42	0.96									
018	13.40	0.94									
360	13.43	0.93									
040	13.35	0.82									
029	13.41	0.82									
211	13.40	0.75									
254	13.34	0.53									
177	13.34	0.44									
363	13.30	0.42									
043	13.30	0.40									
233	13.28	0.34									
055	13.31	0.34									
037	13.27	0.09									
027	13.27	0.03									
Avg	13.26										
043	13.25	-0.09									
177	13.25	-0.11									
131	13.25	-0.11									
072	13.24	-0.16									
131	13.24	-0.16									
185	13.24	-0.21									
009	13.22	-0.26									
291	13.21	-0.32									
377	13.26	-0.33									
024	13.21	-0.35									
Meth: 048.XX PCT											
Water Soluble Phosph											
420	11.83	2.05									
474	10.67	0.27									
473	10.58	0.11									
Avg	10.53										
096	10.41	-0.20									
363	10.45	-0.26									
393	9.99	-0.85									
247	9.79	-1.17									
Meth: 050.00 PCT											
Soluble Potash											
114	11.98	1.65									
009	11.82	1.13									
233	11.77	0.96									
258	11.72	0.80									
470	11.68	0.67									
416	11.57	0.31									
072	11.51	0.20									
090	11.48	0.02									
Avg	11.47										
055	11.43	-0.19									
372	11.41	-0.21									
049	11.42	-0.29									
231	11.35	-0.43									
397	11.20	-0.89									
102	11.29 R	-0.95									
211	11.00	-1.54									
230	10.80	-2.21									
Meth: 048.50 PCT											
Water Soluble Phosph											
393	9.99	0.71									
Meth: 048.99 PCT											
Water Soluble Phosph											
247	9.79	0.71									
Meth: 050.10 PCT											
Soluble Potash											
300	11.84	0.86									
Avg	11.55										
117	11.27	-0.88									
Meth: 050.51 PCT											
Soluble Potash											
007	12.11	1.07									
432	11.95	0.80									
291	11.96	0.79									
023	11.76	0.42									
Meth: 050.51 PCT											
Soluble Potash											
043	11.69	0.29									
389	11.65	0.23									
Avg	11.54										
377	11.45	-0.17									
009	11.21 R	-0.77									
452	10.74	-1.50									
393	10.53 X	-1.87									
Meth: 050.60 PCT											
Soluble Potash											
460	11.89	1.25									
406	11.80	0.91									
Avg	11.58										
309	11.47	-0.45									
105	11.46	-0.49									
443	11.27	-1.29									
Meth: 050.61 PCT											
Soluble Potash											
095	13.09 s	8.51									
456	11.75	1.24									
029	11.73	1.06									
105	11.66	1.02									
041	11.61	0.77									
024	11.61	0.40									
Avg	11.54										
131	11.41	-0.70									
037	11.38	-0.85									
018	11.40	-0.93									
035	11.29	-1.40									
Meth: 050.99 PCT											
Soluble Potash											
074	23.52 s	22.44									

* 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																
Soluble Potash																
Other			330	11.95	.98	Meth: 050.XX PCT										
260	13.12 S	2.93	018	11.40	-.39	Soluble Potash										
322	12.45	1.67	042	11.42	-.42	Free Water										
307	12.35	1.50	450	11.36	-.43	Vacuum Oven										
471	12.09	.99	105	11.36	-.44	473									0.77	-.32
330	11.95	.73	177	11.35	-.44	247									0.76	-.37
232	11.90	.66	476	11.85	.82	007									0.68	-.83
476	11.85	.61	300	11.84	.70	456									0.62	-1.14
455	11.75	.36	009	11.82	.67	474									0.58 R	-1.35
027	11.75	.35	406	11.80	.62	Meth: 060.99 PCT										
360	11.60	.08	233	11.77	.55	Free Water										
Avg	11.56		456	11.75	.54	Other										
131	11.50	-.12	023	11.76	.53	443									4.64 S	.00
042	11.42	-.38	455	11.75	.52	Meth: 060.XX PCT										
450	11.36	-.39	027	11.75	.50	Free Water										
105	11.36	-.40	029	11.73	.46	443									4.64 s	20.19
177	11.35	-.41	258	11.72	.44	096									1.19	1.91
325	11.35	-.49	105	11.66	.44	363									0.98	.79
402	11.19	-.72	043	11.69	.37	Avg									0.83	.29
072	10.56	-1.89	470	11.68	.34	416									0.82 X	-.04
255	10.39	-2.21	041	11.61	.33	473									0.77	-.32
Meth: 050.XX PCT																
Soluble Potash																
474	23.52 s	28.04	389	11.65	.29	247									0.76	-.37
260	13.12 s	3.72	234	11.64	.28	007									0.68	-.83
095	13.09 s	3.65	024	11.61	.18	456									0.62	-1.14
322	12.45	2.15	420	11.61	.17	474									0.58 R	-1.35
030	12.44	2.11	360	11.60	.16	Meth: 101.00 PCT										
307	12.35	1.94	416	11.57	.08	Acid Soluble Calcium										
422	12.35	1.92	Avg	11.54		AA										
007	12.11	1.35	185	11.50	-.08	040									6.95	1.54
471	12.09	1.30	131	11.50	-.10	255									10.39	-2.69
426	12.09	1.29	090	11.48	-.14	419									9.37 s	-5.07
114	11.98	1.05	072	11.51	-.15	Meth: 060.00 PCT										
432	11.95	1.02	309	11.47	-.17	Free Water										
292	11.97	1.01	105	11.46	-.19	Vacuum Oven										
291	11.96	1.00	377	11.45	-.21	096									1.19	1.91
* X=Excluded from lab performance S/s=Screened Outlier R=Duplicate Range too large A=Analysis beyond 3-s limits																
Sample 201005																

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 101.30 PCT											
Acid Soluble Calcium											
ICP			444	6.70	.31	Meth: 101.30 PCT					
035	6.32	-.84	131	6.68	.22	Acid Soluble Calcium					
232	6.54 R	-.89	231	6.72	.22	ICP					
247	6.27	-.90	055	6.69	.20	473					
474	6.26	-.99	177	6.69	.17	420					
114	6.18	-1.20	450	6.66	.08	389					
027	5.96	-1.67	419	6.65	.05	037					
117	5.63	-2.48	Avg	6.63		Avg					
230	3.55 s	-7.66	023	6.60	-.07	2.97					
Meth: 101.99 PCT											
Acid Soluble Calcium											
470	6.93	1.01	351	6.54	-.21	300					
444	6.70	.61	102	6.53	-.24	363					
Avg	6.40		009	6.58	-.25	095					
042	6.30	-.18	324	6.55	-.27	023					
476	5.65	-1.44	363	6.54	-.35	360					
230	5.00 s	-3.14	090	6.61	-.36	450					
Meth: 101.99 PCT											
Acid Soluble Calcium											
422	8.08 s	3.66	157	6.50	-.40	096					
452	7.70	2.70	307	6.34	-.75	2.92					
291	7.69	2.66	255	6.33	-.76	2.96					
330	7.25	1.57	028	6.44 R	-.83	2.94					
432	7.12	1.25	042	6.30	-.83	2.97					
354	7.10	1.19	035	6.32	-.84	2.97					
420	7.02	.99	247	6.27	-.90	2.97					
040	6.95	.81	232	6.54 R	-.92	2.97					
470	6.93	.76	474	6.26	-1.00	2.96					
389	6.93	.75	114	6.18	-1.22	2.95					
300	6.80	.44	027	5.96	-1.70	2.94					
296	6.78	.41	029	5.97 R	-1.96	2.93					
157	6.69	.41	476	5.65	-2.50	2.93					
037	6.77	.37	117	5.63	-2.54	2.92					
095	6.77	.35	397	5.25 s	-3.48	2.91					
433	6.76	.33	230	5.00 s	-4.69	2.90					
Meth: 121.30 PCT											
Acid Soluble Magnesi											
ICP			473	3.01	.28	Meth: 121.30 PCT					
309	4.65 s	12.21	041	3.29	.22	Acid Soluble Magnesi					
422	3.25	2.16	422	3.00	.19	ICP					
291	3.18	1.66	291	2.98	.05	473					
247	3.16	1.55	247	2.97		420					
471	3.13	1.51	300	2.97	-.08	389					
432	3.14	1.39	363	2.96	-.13	037					
354	3.12	1.31	095	2.95	-.20	Avg					
055	3.09 R	1.30	023	2.93	-.31	2.97					
114	3.00 R	1.03	360	2.93	-.33	300					
230	3.02	.91	450	2.93	-.33	363					
87	3.06	.87	096	2.92	-.39	095					
85	3.05	.85	157	2.96	-.44	023					
73	3.00	.73	390	2.94	-.45	360					
61	2.96	.61	419	2.91	-.47	450					
60	3.00	.60	009	2.94	-.48	096					
54	3.02	.54	232	2.94	-.48	2.92					
49	3.01	.49	258	2.91	-.89	2.91					
46	3.00	.46	452	2.85	-.90	2.80					
45	3.01	.45	324	2.86	-.91	2.80					
40	2.96	.40	255	2.84	-1.03	2.84					
40	3.00	.40	090	2.84	-1.05	090					
37	3.00	.37	042	2.80	-1.32	042					
34	2.99	.34	307	2.80	-1.32	307					
34	2.99	.34	035	2.75	-1.77	035					
23	2.95	.23	102	2.72	-1.91	102					
23	2.98	.23	474	2.58 A	-3.06	474					
20	2.97	.20	117	2.57 s	-3.34	117					
17	2.96	.17	Meth: 121.99 PCT								
03	2.95	.03	Acid Soluble Magnesi								
	2.94		Other								
	2.93		471	3.13	1.41	471					
	2.93		360	2.99	.25	470					
	2.93		450	2.96		Avg					
	2.92		096	2.91	-.48	444					
	2.91		476	2.80	-1.10	476					
	2.94		390	2.94	.32	131					

* 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.XX PCT														
<u>Acid Soluble Magnesi</u>														
232	2.94	-.40												
043	2.89	-.41												
444	2.91	-.43												
296	2.87	-.53												
397	2.91	-.56												
452	2.85	-.65												
351	2.85	-.65												
324	2.86	-.67												
258	2.91	-.73												
255	2.84	-.77												
090	2.84	-.80												
476	2.80	-1.03												
042	2.80	-1.03												
307	2.80	-1.04												
157	2.77	-1.30												
095	2.74	-1.44												
035	2.75	-1.46												
029	2.75	-1.52												
102	2.72	-1.59												
474	2.58	-2.66												
117	2.57 s	-2.93												
Meth: 131.00 PCT														
<u>Water Soluble Magnes</u>														
AA	309	2.66	.83											
Avg	2.56													
029	2.47	-.90												
Meth: 131.30 PCT														
<u>Water Soluble Magnes</u>														
ICP	230	2.93	1.00											
452	2.80	.21												
Avg	2.76													
432	2.55	-1.21												
Meth: 144.01 PCT														
<u>Sulfur</u>														
Gravimetric	029	11.37	1.41											
114	11.29	1.09												
043	11.28	1.03												
055	11.22	.68												
233	11.21	.64												
324	11.20	.59												
102	11.11 X	.21												
Avg	11.08													
095	11.08	-.12												
105	11.00	-.43												
028	10.87	-1.04												
296	10.86	-1.17												
040	10.82	-1.31												
397	10.75	-1.63												
Avg	10.75													
452	2.80	.21												
Meth: 144.02 PCT														
<u>Sulfur</u>														
Gravimetric	292	11.81	.71											
Meth: 131.99 PCT														
<u>Water Soluble Magnes</u>														
Other	027	2.89	.97											
Avg	2.85													
234	2.81	-.75												
Meth: 144.70 PCT														
<u>Sulfur</u>														
Spectrometric	474	11.45	.71											
Avg	11.45													
470	9.43 S	-4.93												
Meth: 144.99 PCT														
<u>Sulfur</u>														
Other	291	12.10	2.46											
300	11.93	2.05												
292	11.81	1.77												
157	11.55	1.18												
474	11.45 R	1.16												
360	11.35 R	1.01												
354	11.40	.94												
029	11.37	.74												
473	11.35	.70												
049	11.30	.59												
114	11.29	.59												
043	11.28	.56												
351	11.24	.54												
009	11.13	.49												
055	11.22	.40												
086	11.21	.39												
233	11.21	.38												
324	11.20	.36												
476	11.15	.27												
102	11.11 X	.16												
095	11.08	.09												
Avg	11.05													
105	11.00	-.14												
027	10.98	-.17												
452	11.00	-.18												
037	10.90	-.41												
444	10.88	-.41												
028	10.87	-.42												
296	10.86	-.49												
040	10.82	-.55												
177	10.81	-.55												
247	10.81	-.55												
422	10.81	-.58												
Meth: 144.99 PCT														
<u>Sulfur</u>														
Other	291	12.10	2.46											
300	11.93	2.05												
292	11.81	1.77												
157	11.55	1.18												
474	11.45 R	1.16												
360	11.35 R	1.01												
354	11.40	.94												
029	11.37	.74												
473	11.35	.70												
049	11.30	.59												
114	11.29	.59												
043	11.28	.56												
351	11.24	.54												
009	11.13	.49												
055	11.22	.40												
086	11.21	.39												
233	11.21	.38												
324	11.20	.36												
476	11.15	.27												
102	11.11 X	.16												
095	11.08	.09												
Avg	11.05													
105	11.00	-.14												
027	10.98	-.17												
452	11.00	-.18												
037	10.90	-.41												
444	10.88	-.41												
028	10.87	-.42												
296	10.86	-.49												
040	10.82	-.55												
177	10.81	-.55												
247	10.81	-.55												
422	10.81	-.58												
Meth: 151.30 PPM														
<u>Arsenic</u>														
ICP	009	7.54 R	3.19											
450	6.00	1.56												
096	4.55	.37												
102	4.50	.28												
230	4.44	.27												
Avg	4.20													
474	3.00	-1.04												
444	2.70	-1.30												
Meth: 151.99 PPM														
<u>Arsenic</u>														
Other	231	4.92	.71											
Meth: 151.30 PPM														
<u>Arsenic</u>														
009	7.54 R	3.27												
450	6.00	1.55												
231	4.92	.57												
096	4.55	.32												

* 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
Meth: 151.XX PPM											
<u>Arsenic</u>											
230	4.44	.22									
102	4.50	.21									
Avg	4.30										
474	3.00	-1.19									
444	2.70	-1.47									
Meth: 165.00 PCT											
<u>Acid Soluble Boron</u>											
452	0.266	1.57									
037	0.237	.21									
Avg	0.232										
029	0.220	-.41									
055	0.205	-.90									
Meth: 165.99 PCT											
<u>Acid Soluble Boron</u>											
Other											
043	0.210	-.42									
324	0.210	-.49									
444	0.215 R	-.64									
426	0.202	-.81									
471	0.200	-.86									
230	0.174	-1.87									
255	0.174	-1.89									
042	0.155	-2.64									
114	0.150 S	-2.86									
Meth: 165.XX PCT											
<u>Acid Soluble Boron</u>											
432	0.510 s	12.70									
452	0.266 R	2.38									
473	0.255	1.48									
258	0.250	1.25									
360	0.247	1.11									
389	0.245	1.06									
086	0.255	1.40									
258	0.250	1.19									
360	0.247	1.05									
389	0.245	1.01									
086	0.244	.97									
231	0.235	.62									
300	0.235	.62									
433	0.235	.60									
040	0.233	.62									
363	0.223	.54									
009	0.230	.42									
049	0.226	.35									
354	0.225	.29									
232	0.223	.26									
009	0.230	.39									
049	0.226	.33									
354	0.225	.27									
232	0.223	.24									
090	0.225	.19									
117	0.223	.16									
Avg	0.220										
291	0.220	-.02									
422	0.215	-.30									
Meth: 165.XX PCT											
<u>Acid Soluble Boron</u>											
Other											
432	0.510 s	12.07									
473	0.255	1.40									
258	0.250	1.19									
360	0.247	1.05									
389	0.245	1.01									
086	0.244	.97									
231	0.235	.62									
300	0.235	.62									
433	0.235	.60									
040	0.233	.62									
363	0.223	.54									
009	0.230	.42									
049	0.226	.35									
354	0.225	.29									
232	0.223	.26									
009	0.230	.39									
049	0.226	.33									
354	0.225	.27									
232	0.223	.24									
090	0.225	.19									
117	0.223	.16									
Avg	0.220										
291	0.220	-.02									
422	0.215	-.30									
Meth: 165.XX PCT											
<u>Acid Soluble Boron</u>											
Other											
432	0.510 s	12.07									
473	0.255	1.40									
258	0.250	1.19									
360	0.247	1.05									
389	0.245	1.01									
086	0.244	.97									
231	0.235	.62									
300	0.235	.62									
433	0.235	.60									
040	0.233	.62									
363	0.223	.54									
009	0.230	.42									
049	0.226	.35									
354	0.225	.29									
232	0.223	.26									
009	0.230	.39									
049	0.226	.33									
354	0.225	.27									
232	0.223	.24									
090	0.225	.19									
117	0.223	.16									
Avg	0.220										
291	0.220	-.02									
422	0.215	-.30									
Meth: 165.99 PCT											
<u>Acid Soluble Boron</u>											
Other											
043	0.210	-.42									
324	0.210	-.49									
444	0.215 R	-.64									
426	0.202	-.81									
471	0.200	-.86									
230	0.174	-1.87									
255	0.174	-1.89									
042	0.155	-2.64									
114	0.150 S	-2.86									
Meth: 165.XX PCT											
<u>Acid Soluble Boron</u>											
432	0.510 s	12.70									
452	0.266 R	2.38									
473	0.255	1.48									
258	0.250	1.25									
360	0.247	1.11									
389	0.245	1.06									
086	0.255	1.40									
258	0.250	1.19									
360	0.247	1.05									
389	0.245	1.01									
086	0.244	.97									
231	0.235	.62									
300	0.235	.62									
433	0.235	.60									
040	0.233	.62									
363	0.223	.54									
009	0.230	.42									
049	0.226	.35									
354	0.225	.29									
232	0.223	.26									
009	0.230	.39									
049	0.226	.33									
354	0.225	.27									
232	0.223	.24									
090	0.225	.19									
117	0.223	.16									
Avg	0.220										
291	0.220	-.02									
422	0.215	-.30									
Meth: 165.99 PCT											
<u>Acid Soluble Boron</u>											
Other											
043	0.210	-.42									
324	0.210	-.49									
444	0.215 R	-.64									
426	0.202	-.81									
471	0.200	-.86									
230	0.174	-1.87									
255	0.174	-1.89									
042	0.155	-2.77									
114	0.150 s	-3.00									
Meth: 181.99 PPM											
<u>Cadmium</u>											
231	9.88	.71									
Meth: 181.XX PPM											
<u>Cadmium</u>											
086	12.50	2.23									
363	11.33	1.22									
096	10.75	.78									
474	10.50	.68									
233	10.36	.54									
009	10.31	.47									
231	9.88	.04									
Avg	9.83										
419	9.70	-.11									
037	9.77	-.13									
102	9.59	-.20									
247	9.55	-.23									
450	9.10	-.60									
452	9.01	-.69									
035	9.09	-.70									
232	8.85	-.88									
230	7.02	-2.29									
444	5.93 s	-3.18									
Meth: 190.00 PCT											
<u>Water Soluble Chlori</u>											
Titrimetric											
422	1.72	2.17									
043	1.48	.29									
460	1.46	.28									
029	1.47	.18									
Avg	1.45										
055	1.44	-.08									
102	1.42	-.27									
023	1.32	-1.08									
389	1.31	-1.16									
444	0.51 s	-7.55									
Meth: 190.99 PCT											
<u>Water Soluble Chlori</u>											
Other											
397	4.76 S	4.26									
471	1.79	1.01									
157	1.65	.86									
Avg	0.86										
037	0.02	-.93									
455	0.00	-.94									
Meth: 191.30 PPM											
<u>Chromium</u>											
ICP											
450	233.50 s	3.35									
086	169.30	1.13									
009	166.05	1.04									
419	159.50	.80									
096	157.00	.71									
247	156.50	.70									
035	146.00	.37									
232	139.10 R	.29									
102	139.99	.14									

* 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: 241.30 PCT														
Acid Soluble Iron														
ICP			233	0.58	.72	030	0.40 R	-2.73	474	5.00	-97	041	0.525	.24
Avg	0.54		102	0.58	.63	230	0.37	-3.19	444	4.64	-1.31	390	0.523	.23
255	0.54	-.04	231	0.57	.52	042	0.24 s	-5.77	452	4.40	-1.43	131	0.523	.18
095	0.53	-.12	096	0.57	.52	324	0.06 s	-9.07				231	0.520	.06
023	0.53	-.20	029	0.57	.51							Avg	0.518	
086	0.54	-.34	037	0.57	.49	Meth: 251.30 PPM								
420	0.51	-.63	009	0.56	.43	Lead			AA			363	0.517	-.03
232	0.50	-.93	360	0.56	.43	ICP			258	0.565	1.92	419	0.513	-.14
426	0.50	-.95	363	0.56	.40	450	8.00	1.19	351	0.538	.54	023	0.512	-.19
402	0.49	-1.01	090	0.56	.39	419	7.85	1.08	397	0.530	.52	095	0.511	-.19
247	0.49	-1.05	390	0.56	.38	096	7.60	.92	Avg	0.527		090	0.517	-.25
452	0.49	-1.13	131	0.56	.29	009	7.46	.81	177	0.526	-.10	360	0.508	-.26
027	0.49	-1.15	095	0.55	.23	233	7.31	.70	040	0.516	-.59	422	0.502	-.43
291	0.49	-1.16	040	0.55	.22	232	6.77	.51	043	0.510	-.89	330	0.500	-.47
444	0.49	-1.16	473	0.55	.15	Avg	6.37		296	0.507	-1.05	114	0.500	-.54
450	0.49	-1.16	Avg	0.54		102	5.65	-.53	095	0.488 R	-2.19	291	0.485	-.88
114	0.50 R	-1.20	419	0.54	-.07	230	5.40	-.71				117	0.457	-1.61
433	0.48	-1.26	255	0.54	-.07	474	5.00	-1.00	Meth: 261.11 PCT					
300	0.47	-1.48	397	0.54	-.16	444	4.64	-1.33	Acid Soluble Manganese					
117	0.47	-1.54	095	0.53	-.17	452	4.40	-1.45	AA			027	0.446	-1.92
230	0.37 A	-3.57	041	0.54	-.19				029	0.489	.71	433	0.434	-2.22
042	0.24 s	-6.51	023	0.53	-.23	Meth: 251.99 PPM								
324	0.06 s	-10.28	086	0.54	-.31	Lead			Meth: 261.30 PCT					
			420	0.51	-.61	Other			Acid Soluble Manganese					
			232	0.50	-.86	231	5.48	-.71	ICP			420	0.215 s	-8.05
			426	0.50	-.88				432	0.615	2.61	300	0.170 s	-9.23
			402	0.49	-.94	Meth: 251.30 PPM								
			247	0.49	-.98	Lead			354	0.570	1.39	402	0.164 s	-9.39
			452	0.49	-1.05	450	8.00	1.28	055	0.550 R	1.17	Meth: 261.31 PCT		
			027	0.49	-1.06	419	7.85	1.17	035	0.560	1.11	Acid Soluble Manganese		
			291	0.49	-1.08	096	7.60	1.00	086	0.548	.98	ICP		
			444	0.49	-1.08	009	7.46	.88	009	0.552	.92	230	0.521	.71
			450	0.49	-1.08	009	7.31	.78	389	0.545	.74	Meth: 261.99 PCT		
			114	0.50 R	-1.09	232	6.77	.56	450	0.545	.74	Acid Soluble Manganese		
			433	0.48	-1.16	Avg	6.30		452	0.543	.71	Other		
			300	0.47	-1.35	102	5.65	-.49	324	0.528	.33	471	0.526	.88
			117	0.47	-1.41	231	5.48	-.61	247	0.527	.33	037	0.521	.78
			474	0.46	-1.55	230	5.40	-.68	102	0.529	.32	255	0.500	.33
									233	0.521	.24	Avg	0.486	

* 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														
Acid Soluble Manganese														
Other			360	0.508	-.22									
042	0.475	-.28	296	0.507	-.27									
474	0.410	-1.71	422	0.502	-.43									
Meth: 261.99 PCT														
Acid Soluble Manganese														
432	0.615 A	3.33	029	0.489	-.97									
354	0.570	1.82	291	0.485	-.98									
258	0.565	1.66	095	0.488	-1.04									
055	0.550 R	1.52	042	0.475	-1.31									
035	0.560	1.48	117	0.457	-1.89									
086	0.548	1.29	426	0.457	-1.91									
009	0.552	1.24	232	0.466 R	-1.92									
389	0.545	1.01	027	0.446	-2.27									
450	0.545	1.01	433	0.434	-2.64									
452	0.543	.97	474	0.410 A	-3.44									
351	0.538	.77	444	0.290 s	-7.39									
397	0.530	.60	420	0.215 s	-9.84									
324	0.528	.50	300	0.170 s	-11.30									
102	0.529	.49	402	0.164 s	-11.50									
247	0.527	.49	Meth: 281.00 PPM											
177	0.526	.39	Mercury											
471	0.526	.39	231	7.10	.87									
041	0.525	.38	Avg	3.55										
390	0.523	.36	Atomic Absorption	422	0.00	-.87								
233	0.521	.35	230	0.01	.71									
090	0.517	.32	Meth: 281.99 PPM											
037	0.521	.31	Mercury											
131	0.523	.31	Other	233	11.23	.94								
230	0.521	.21	247	11.00	.87									
231	0.520	.18	232	10.33	.70									
040	0.516	.08	419	10.00	.59									
363	0.517	.07	Meth: 281.99 PPM											
Avg	0.515		Mercury											
419	0.513	-.08	296	0.01	.86									
095	0.511	-.13	Avg	0.01										
043	0.510	-.15	230	0.01	-.87									
023	0.512	-.15	102	9.33	.40									
			452	8.90	.28									
Meth: 289.30 PPM														
Molybdenum														
ICP			450	11.50	1.03									
450	11.50	.99	233	11.23	.94									
233	11.23	.89	247	11.00	.81									
247	11.00	.81	232	10.33	.62									
232	10.33	.62	086	8.90 R	.53									
086	8.90 R	.53	419	10.00	.48									
419	10.00	.48	009	9.71	.39									
009	9.71	.39	433	9.46	.31									
433	9.46	.31	035	9.37	.28									
035	9.37	.28	102	9.33	.26									
102	9.33	.26	452	8.90	.13									
452	8.90	.13	Avg	8.52										
Avg	8.52		230	7.85	-.22									
230	7.85	-.22	255	5.63	-.96									
255	5.63	-.96	474	5.00	-1.15									
474	5.00	-1.15	444	0.00	-2.79									
444	0.00	-2.79	Meth: 289.99 PPM											
Molybdenum														
Other			231	7.10	.87									
231	7.10	.87	Avg	3.55										
Avg	3.55		422	0.00	-.87									
422	0.00	-.87	Meth: 289.99 PPM											
Molybdenum														
450	11.50	1.03												
233	11.23	.94												
247	11.00	.87												
232	10.33	.70												
419	10.00	.59												
086	8.90 R	.53												
009	9.71	.51												
433	9.46	.44												
035	9.37	.42												
102	9.33	.40												
452	8.90	.28												
Meth: 289.99 PPM														
Mercury														
231	7.10	.87												
Avg	3.55													
422	0.00	-.87												
Meth: 281.00 PPM														
Mercury														
231	7.10	.87												
Avg	3.55													
422	0.00	-.87												
Meth: 281.99 PPM														
Mercury														
231	7.10	.87												
Avg	3.55													
422	0.00	-.87												
Meth: 281.99 PPM														
Other														
296	0.01	-.71												
Meth: 281.99 PPM														
Mercury														
296	0.01	.86												
Avg	0.01													
230	0.01	-.87												
040	0.516	.08												
363	0.517	.07												
Avg	0.515													
419	0.513	-.08												
095	0.511	-.13												
043	0.510	-.15												
023	0.512	-.15												

* 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
Meth: 311.99 PCT											
Sodium											
Other											
422	0.63	2.15	474	0.405	.61	420	0.381	-.14	420	0.381	-.14
307	0.56	.65	Avg	0.383		041	0.380	-.15	041	0.380	-.15
086	0.55	.59	471	0.362	-1.06	Avg	0.383		402	0.382	-.18
Avg	0.53					471	0.362	-1.06	292	0.375	-.43
474	0.53	-.11	Meth: 321.99 PCT								
009	0.52	-.25	Acid Soluble Zinc								
232	0.52	-.27	Other								
102	0.52	-.34	432	0.765 s	17.14	432	0.765 s	17.14	390	0.381	-.57
363	0.51	-.58	247	0.547 s	7.34	247	0.547 s	7.34	231	0.370	-.59
035	0.47	-1.59	086	0.447 A	2.94	086	0.447 A	2.94	035	0.369	-.65
Meth: 321.00 PCT											
Acid Soluble Zinc											
Atomic Absorption											
397	0.405	.79	055	0.425 R	2.18	055	0.425 R	2.18	300	0.365	-.85
028	0.403	.73	354	0.415	1.58	354	0.415	1.58	232	0.366	-.90
296	0.405	.73	360	0.413	1.55	360	0.413	1.55	095	0.363	-.94
040	0.400	.52	389	0.410	1.28	389	0.410	1.28	255	0.359	-1.11
351	0.395	.25	102	0.410	1.21	102	0.410	1.21	117	0.358	-1.17
177	0.392	.10	114	0.410	1.20	114	0.410	1.20	452	0.378 R	-1.32
Avg	0.390		450	0.400	1.17	450	0.400	1.17	433	0.353	-1.37
258	0.390	-.50	397	0.405	1.00	397	0.405	1.00	444	0.350	-1.49
043	0.380	-.71	473	0.405	1.00	473	0.405	1.00	291	0.350	-1.49
029	0.361 R	-1.93	474	0.405	1.00	474	0.405	1.00	029	0.361 R	-1.50
095	0.343	-2.39	296	0.405	.96	296	0.405	.96	471	0.362 R	-1.75
Meth: 321.30 PCT											
Acid Soluble Zinc											
ICP											
432	0.765 s	15.41	028	0.403	.93	028	0.403	.93	095	0.343	-1.83
247	0.547 s	6.62	096	0.402	.91	096	0.402	.91	027	0.338	-2.06
086	0.447	2.66	233	0.398	.82	233	0.398	.82	426	0.335	-2.24
055	0.425 R	1.98	040	0.400	.76	040	0.400	.76	230	0.254 s	-5.80
354	0.415	1.43	330	0.400	.75	330	0.400	.75	Meth: 325.30 PCT		
360	0.413	1.41	009	0.399	.70	009	0.399	.70	Water Soluble Zinc		
389	0.410	1.17	090	0.395	.64	090	0.395	.64	ICP		
102	0.410	1.10	258	0.390	.54	258	0.390	.54	473	0.070	-.71
			351	0.395	.53	351	0.395	.53			
			324	0.395	.51	324	0.395	.51			
			177	0.392	.39	177	0.392	.39			
			037	0.385	.32	037	0.385	.32			
			042	0.390	.29	042	0.390	.29			
			363	0.385	.27	363	0.385	.27			
			422	0.385	.12	422	0.385	.12			
			419	0.384	.04	419	0.384	.04			
			Avg	0.383		Avg	0.383				
			420	0.381	-.11	420	0.381	-.11			
			041	0.380	-.11	041	0.380	-.11			
			402	0.382	-.15	402	0.382	-.15			
			292	0.375	-.37	292	0.375	-.37			
			023	0.375	-.42	023	0.375	-.42			
			131	0.371	-.49	131	0.371	-.49			
			390	0.381	-.51	390	0.381	-.51			
			231	0.370	-.51	231	0.370	-.51			
			035	0.369	-.57	035	0.369	-.57			
			300	0.365	-.74	300	0.365	-.74			
			232	0.366	-.79	232	0.366	-.79			
			095	0.363	-.83	095	0.363	-.83			
			255	0.359	-.98	255	0.359	-.98			
			117	0.358	-1.03	117	0.358	-1.03			
			452	0.378 R	-1.18	452	0.378 R	-1.18			
			433	0.353	-1.21	433	0.353	-1.21			
			291	0.350	-1.32	291	0.350	-1.32			
			444	0.350	-1.32	444	0.350	-1.32			
			027	0.338	-1.83	027	0.338	-1.83			
			426	0.335	-1.99	426	0.335	-1.99			
			230	0.254 s	-5.19	230	0.254 s	-5.19			
			Avg	0.383		Avg	0.383				

* 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	10	0.17	1.11	0.12	050.60	5	0.00	1.04	0.17
001.99	11	0.63	4.16	0.39	050.61	10	0.85	2.82	0.44
001.XX	21	0.40	1.83	0.17	050.99	20	1.27	5.11	0.17
002.20	3	0.00	1.07	0.27	050.XX	74	0.41	3.50	0.26
002.99	8	0.11	1.01	0.17	060.00	8	0.17	1.07	0.08
002.XX	11	0.06	0.98	0.19	060.XX	9	2.10	6.86	0.08
009.10	6	2.20	6.46	0.63	101.00	11	1.26	2.77	0.91
009.99	2	0.00	1.07	0.42	101.30	38	0.11	1.66	0.33
009.XX	8	1.93	6.37	0.62	101.99	5	0.53	1.50	0.78
010.11	7	5.61	9.62	0.24	101.XX	51	0.16	1.46	0.47
010.12	5	0.00	1.03	0.23	121.00	12	1.23	4.35	0.45
010.60	58	0.22	1.61	0.28	121.30	42	0.25	2.73	0.42
010.99	7	1.20	4.37	0.37	121.99	4	0.00	0.98	0.39
010.XX	74	0.68	3.60	0.84	121.XX	56	0.49	2.75	0.41
020.10	8	0.00	0.95	0.39	131.00	2	0.00	1.17	0.25
020.20	16	0.86	3.59	3.11	131.30	3	0.00	1.04	0.33
020.40	7	0.00	0.99	0.31	131.99	2	0.00	1.00	0.50
020.50	14	0.00	1.00	0.16	131.XX	7	0.00	1.00	0.26
020.99	5	0.79	1.98	0.37	144.01	13	0.00	0.99	0.24
020.XX	46	0.07	2.08	1.50	144.70	2	2.46	3.48	0.50
030.20	2	0.00	0.78	0.67	144.99	30	0.30	1.57	0.31
030.XX	6	0.33	1.25	0.64	144.XX	45	0.39	1.80	0.35
040.20	3	0.00	0.93	0.51	151.30	7	0.41	1.45	0.51
040.XX	7	0.00	0.97	0.34	151.XX	8	0.37	1.42	0.51
041.10	13	0.00	0.96	0.34	165.00	4	0.000	0.864	0.561
041.20	3	0.00	1.07	0.26	165.99	28	0.307	2.468	0.649
041.40	4	0.00	1.03	0.27	165.XX	32	0.350	2.445	0.687
041.50	13	1.39	3.87	0.50	181.30	15	0.20	1.23	0.25
041.60	9	0.00	0.97	0.33	181.XX	17	0.19	1.23	0.24
041.99	2	0.00	1.21	0.15	190.00	9	0.84	2.69	0.23
041.XX	37	0.26	1.77	0.42	190.99	5	0.85	2.12	0.03
048.20	5	0.00	1.05	0.14	190.XX	14	0.34	1.90	0.05
048.XX	7	0.00	1.03	0.11	191.30	14	0.24	1.29	0.16
050.00	16	0.04	0.98	0.23	191.XX	15	0.21	1.28	0.14
050.10	2	0.00	1.21	0.13	202.30	13	0.11	1.05	0.21
050.30	5	0.00	1.04	0.18	202.XX	15	0.09	1.04	0.15
050.31	2	0.00	1.22	0.05	221.00	4	28.118	56.242	1.3365
050.50	11	0.45	1.76	0.23	221.30	22	34.672	161.55	2.9228
050.51	10	0.06	0.98	0.19	221.99	2	32.88	46.500	0.5000

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
221.XX	27	32.829	158.34	2.8786					
241.00	12	- 0.31	1.46	0.23					
241.30	41	- 0.36	2.40	0.26					
241.XX	52	- 0.25	1.96	0.22					
251.30	11	0.00	1.00	0.21					
251.XX	12	0.00	1.00	0.21					
261.00	8	- 0.253	1.179	0.366					
261.30	36	- 0.923	2.803	0.276					
261.99	5	0.000	1.048	0.147					
261.XX	50	- 0.801	3.013	0.320					
281.XX	2	0.000	1.164	0.270					
289.30	15	0.01	0.98	0.16					
289.99	2	0.00	1.22	0.02					
289.XX	17	0.02	0.98	0.13					
291.30	15	- 0.30	1.51	0.30					
291.99	2	0.00	1.22	0.02					
291.XX	17	- 0.16	1.19	0.20					
301.30	2	0.00	1.22	0.08					
301.XX	3	0.00	1.10	0.16					
311.99	9	0.00	1.00	0.22					
311.XX	9	0.00	1.00	0.22					
321.00	10	- 0.146	1.036	0.484					
321.30	43	0.427	2.832	0.388					
321.99	2	0.000	0.837	0.632					
321.XX	54	0.418	2.830	0.476					