

- Pass 1 Results for 74 Labs - - Pass 2 Results for 72 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	9	4.64	0.12	0.04	8	4.64	0.12	0.02
Ammoniacal Nitrogen, Other		001.99	6	4.72	0.25	0.15	5	4.70	0.21	0.04
Method Group 001.XX PCT			15	4.68	0.19	0.08	14	4.66	0.16	0.04
Ammon & Nitrate N, Devarda	892.01	009.10	6	4.79	0.11	0.07	6	4.79	0.11	0.07
Total Nitrogen, Modified Comprehensive	978.02	010.11	5	4.74	0.08	0.05	4	4.76	0.05	0.02
Total Nitrogen, Salicylic	955.04D	010.12	4	4.82	0.12	0.04	4	4.82	0.12	0.04
Total Nitrogen, Combustion		010.60	45	4.79	0.12	0.06	43	4.79	0.11	0.05
Total Nitrogen, Other		010.99	3	4.84	0.17	0.02	3	4.84	0.17	0.02
Method Group 010.XX PCT			58	4.79	0.12	0.06	55	4.79	0.11	0.05
Total Phosphate, Grav Quimociac	962.02	020.10	7	8.13	0.11	0.03	7	8.13	0.11	0.03
Total Phosphate, Spectrometric	958.01	020.20	12	8.01	0.17	0.10	11	8.02	0.17	0.08
Total Phosphate, Automated	978.01	020.40	6	7.92	0.19	0.08	6	7.92	0.19	0.08
Total Phosphate, ICP		020.50	13	8.04	0.34	0.14	12	8.04	0.35	0.11
Total Phosphate, Other		020.99	3	7.99	0.16	0.05	3	7.99	0.16	0.05
Method Group 020.XX PCT			41	8.02	0.24	0.09	38	8.02	0.23	0.07
Insoluble Phosphate, Spectrometric	963.03C	030.20	1	0.00	0.00	0.00	1	0.00	0.00	0.00
InDir Available Phosphate, Spectrometri	960.02	040.20	1	7.89	0.04	0.05	1	7.89	0.04	0.05
Dir Available Phosphate, Grav Quimociac	960.03E	041.10	7	7.97	0.06	0.04	7	7.97	0.06	0.04
Dir Available Phosphate, Spectrometric	960.03D	041.20	1	7.72	0.11	0.15	1	7.72	0.11	0.15
Dir Available Phosphate, Automated	978.01	041.40	2	7.91	0.32	0.51	2	7.91	0.32	0.51
Dir Available Phosphate, ICP		041.50	9	8.02	0.19	0.09	9	8.02	0.19	0.09
Dir Available Phosphate, EDTA Extract	993.01	041.60	9	8.09	0.17	0.08	8	8.06	0.14	0.05
Dir Available Phosphate, Other		041.99	1	8.10	0.07	0.10	1	8.10	0.07	0.10
Method Group 041.XX PCT			30	8.03	0.19	0.10	28	8.04	0.18	0.08
Water Soluble Phosphate, Spectrometric	970.01	048.20	2	6.22	0.07	0.06	2	6.22	0.07	0.06
Soluble Potash, STPB Oxalate	958.02	050.00	12	20.88	0.20	0.08	11	20.87	0.20	0.05
Soluble Potash, AA (Oxalate)		050.30	4	21.07	0.53	0.33	4	21.07	0.53	0.33
Soluble Potash, ICP (Oxalate)		050.50	5	21.09	0.62	0.40	5	21.09	0.62	0.40
Soluble Potash, ICP (Citrate)		050.51	10	21.18	0.63	0.24	9	21.21	0.61	0.12
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	3	20.78	0.18	0.08	3	20.78	0.18	0.08
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	6	21.02	0.30	0.13	6	21.02	0.30	0.13
Soluble Potash, Other		050.99	22	20.81	0.53	0.24	21	20.78	0.51	0.20
Method Group 050.XX PCT			63	20.93	0.50	0.21	59	20.93	0.46	0.15
Free Water, Vacuum Oven	965.08B	060.00	4	0.65	0.11	0.02	4	0.65	0.11	0.02
Free Water, Karl Fischer	972.01	060.20	1	0.86	0.02	0.03	1	0.86	0.02	0.03
Method Group 060.XX PCT			5	0.69	0.13	0.02	5	0.69	0.13	0.02
Acid Soluble Calcium, AA	945.04	101.00	2	5.95	0.07	0.09	2	5.95	0.07	0.09
Acid Soluble Calcium, ICP		101.30	12	5.86	0.22	0.10	12	5.86	0.22	0.10
Method Group 101.XX PCT			15	5.94	0.32	0.09	15	5.94	0.32	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
Acid Soluble Magnesium, AA	984.01	121.00	9	1.37	0.09	0.02	9	1.37	0.09	0.02
Acid Soluble Magnesium, ICP		121.30	23	1.27	0.07	0.02	23	1.27	0.07	0.02
Acid Soluble Magnesium, Other		121.99	3	1.30	0.19	0.05	3	1.30	0.19	0.05
Method Group 121.XX PCT			37	1.28	0.12	0.02	36	1.27	0.12	0.02
Water Soluble Magnesium, AA		131.00	1	1.16	0.02	0.03	1	1.16	0.02	0.03
Water Soluble Magnesium, ICP		131.30	4	1.15	0.12	0.02	4	1.15	0.12	0.02
Water Soluble Magnesium, Other		131.99	1	0.53	0.01	0.01	1	0.53	0.01	0.01
Method Group 131.XX PCT			6	1.05	0.26	0.02	6	1.05	0.26	0.02
Sulfur, Gravimetric	980.02a	144.01	14	10.26	0.24	0.05	14	10.26	0.24	0.05
Sulfur, Gravimetric	980.02b	144.02	2	10.48	0.38	0.04	2	10.48	0.38	0.04
Sulfur, Spectrometric		144.70	1	9.46	0.20	0.28	1	9.46	0.20	0.28
Sulfur, Other		144.99	20	10.10	0.44	0.17	19	10.13	0.42	0.15
Method Group 144.XX PCT			37	10.16	0.40	0.12	36	10.18	0.38	0.11
Arsenic, Atomic Absorption		151.00	2	19.80	6.30	0.50	2	19.80	6.30	0.50
Arsenic, ICP		151.30	7	25.27	3.33	0.71	7	25.27	3.33	0.71
Method Group 151.XX PPM			9	24.06	4.58	0.66	9	24.06	4.58	0.66
Acid Soluble Boron, Spectrometric	982.01	165.00	5	0.316	0.029	0.009	4	0.311	0.030	0.003
Acid Soluble Boron, Titrimetric	949.02	165.70	1	0.330	0.000	0.000	1	0.330	0.000	0.000
Acid Soluble Boron, Other		165.99	19	0.353	0.039	0.010	19	0.353	0.039	0.010
Method Group 165.XX PCT			25	0.344	0.039	0.009	24	0.345	0.039	0.008
Water Soluble Boron, Other		171.99	1	0.349	0.016	0.022	1	0.349	0.016	0.022
Cadmium, Atomic Absorption		181.00	3	11.63	0.57	0.07	3	11.63	0.57	0.07
Cadmium, ICP		181.30	8	11.53	0.70	0.54	8	11.53	0.70	0.54
Method Group 181.XX PPM			11	11.56	0.66	0.41	11	11.56	0.66	0.41
Water Soluble Chlorine, Titrimetric	928.02	190.00	11	16.46	1.06	0.20	10	16.59	1.02	0.14
Water Soluble Chlorine, Other		190.99	2	15.25	1.29	0.43	2	15.25	1.29	0.43
Method Group 190.XX PCT			13	16.27	1.16	0.23	11	16.37	1.20	0.13
Chromium, Atomic Absorption		191.00	2	41.53	9.88	1.05	2	41.53	9.88	1.05
Chromium, ICP		191.30	6	33.04	4.39	0.70	6	33.04	4.39	0.70
Method Group 191.XX PPM			8	35.16	6.93	0.79	8	35.16	6.93	0.79
Acid Soluble Cobalt, AA		202.00	1	2.75	0.35	0.50	1	2.75	0.35	0.50
Acid Soluble Cobalt, ICP	965.11	202.30	7	4.16	0.89	0.29	6	4.06	0.90	0.15
Method Group 202.XX PPM			8	3.98	0.97	0.31	7	3.87	0.96	0.20
Acid Soluble Copper, Atomic Absorption	975.01	221.00	4	0.0465	0.0059	0.0038	4	0.0465	0.0059	0.0038
Acid Soluble Copper, ICP		221.30	15	0.0481	0.0024	0.0017	15	0.0481	0.0024	0.0017
Method Group 221.XX PCT			20	0.0482	0.0039	0.0024	19	0.0484	0.0038	0.0020
Acid Soluble Iron, Atomic Absorption	980.01	241.00	12	0.44	0.07	0.02	12	0.44	0.07	0.02
Acid Soluble Iron, ICP		241.30	30	0.45	0.06	0.02	30	0.45	0.06	0.02
Acid Soluble Iron, Other		241.99	1	0.48	0.04	0.06	1	0.48	0.04	0.06

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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 241.XX PCT			43	0.44	0.06	0.02	42	0.44	0.06	0.02
Lead, Atomic Absorption		251.00	2	154.75	6.60	8.50	2	154.75	6.60	8.50
Lead, ICP		251.30	10	126.75	25.36	6.90	9	120.73	17.80	5.00
Method Group 251.XX PPM			12	131.42	25.50	7.16	11	126.91	21.05	5.63
Acid Soluble Manganese, AA	972.02a	261.00	7	0.040	0.003	0.001	7	0.040	0.003	0.001
Acid Soluble Manganese, AA	972.02b	261.11	3	0.042	0.007	0.004	3	0.042	0.007	0.004
Acid Soluble Manganese, ICP	972.02a	261.30	24	0.036	0.004	0.002	22	0.037	0.004	0.001
Acid Soluble Manganese, ICP	972.02b	261.31	1	0.041	0.002	0.002	1	0.041	0.002	0.002
Acid Soluble Manganese, Other		261.99	1	0.045	0.007	0.010	1	0.045	0.007	0.010
Method Group 261.XX PCT			37	0.038	0.005	0.002	34	0.038	0.005	0.002
Mercury, Atomic Absorption		281.00	1	0.09	0.01	0.01	1	0.09	0.01	0.01
Mercury, ICP		281.30	1	8.35	0.07	0.10	1	8.35	0.07	0.10
Method Group 281.XX PPM			2	4.22	4.77	0.05	2	4.22	4.77	0.05
Molybdenum, ICP		289.30	9	16.43	2.17	1.75	9	16.43	2.17	1.75
Method Group 289.XX PPM			10	17.75	4.55	1.73	10	17.75	4.55	1.73
Nickel, Atomic Absorption		291.00	1	6.50	0.00	0.00	1	6.50	0.00	0.00
Nickel, ICP		291.30	8	13.21	4.03	1.23	8	13.21	4.03	1.23
Method Group 291.XX PPM			10	13.75	6.10	2.30	9	12.47	4.37	1.09
Selenium, ICP		301.30	1	0.00	0.00	0.00	1	0.00	0.00	0.00
Sodium, Atomic Absorption	983.04	311.00	1	0.56	0.00	0.00	1	0.56	0.00	0.00
Sodium, Other		311.99	6	0.58	0.02	0.01	6	0.58	0.02	0.01
Method Group 311.XX PCT			7	0.57	0.02	0.01	7	0.57	0.02	0.01
Acid Soluble Zinc, Atomic Absorption ..	975.02	321.00	11	1.411	0.076	0.047	10	1.410	0.074	0.034
Acid Soluble Zinc, ICP		321.30	29	1.427	0.100	0.045	28	1.427	0.101	0.041
Acid Soluble Zinc, Other		321.99	1	1.445	0.007	0.010	1	1.445	0.007	0.010
Method Group 321.XX PCT			41	1.423	0.093	0.045	39	1.423	0.093	0.039

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: 010.60 PCT			Meth: 010.60 PCT			Meth: 010.XX PCT		
<u>Ammoniacal Nitrogen</u>			<u>Ammoniacal Nitrogen</u>			<u>Total Nitrogen</u>			<u>Total Nitrogen</u>			<u>Total Nitrogen</u>		
<u>MgO Distillation</u>			<u>Combustion</u>			<u>Combustion</u>			<u>Combustion</u>			<u>Combustion</u>		
504	4.78	1.16	230	4.61	-.40	389	5.25 s	4.06	029	4.76	-.65	231	4.89	.85
405	4.76	.99	027	4.57	-.64	452	5.05	2.29	025	4.72	-.77	494	4.88	.82
481	4.71 R	.87	416	4.49	-1.12	485	5.02	2.09	105	4.71	-.83	360	4.87	.71
456	4.72	.67	368	4.45	-1.38	325	4.84 R	1.70	043	4.70	-.89	007	4.85	.67
090	4.71	.61	415	4.43	-1.45	291	4.94	1.26	230	4.72	-.98	482	4.87	.65
Avg	4.64		Meth: 009.10 PCT			034	4.92	1.15	390	4.67	-1.18	055	4.84	.60
498	4.60	-.29	Ammon & Nitrate N			486	4.91	.99	102	4.78 R	-1.40	406	4.86	.55
230	4.61	-.32	<u>Devarda</u>			351	4.85	.99	402	4.59	-1.87	504	4.85	.50
416	4.49	-1.22	504	4.94	1.37	231	4.89	.86	472	4.57	-2.04	483	4.84	.49
415	4.43	-1.63	452	4.90	1.25	494	4.88	.83	042	4.47	-2.94	451	4.83	.48
Meth: 001.99 PCT			Avg	4.79		360	4.87	.71	275	4.43 s	-3.26	307	4.85	.47
Ammoniacal Nitrogen			169	4.74	-.51	007	4.85	.67	489	4.00 s	-7.11	023	4.83	.36
Other			258	4.77	-.54	482	4.87	.65	Meth: 010.99 PCT			177	4.83	.35
500	5.61 S	4.26	498	4.70	-.79	055	4.84	.61	Total Nitrogen			211	4.83	.33
487	4.85 R	1.78	090	4.69	-.94	406	4.86	.55	Other			095	4.82	.30
506	5.05	1.63	Meth: 010.11 PCT			483	4.84	.49	500	5.61 S	4.63	405	4.82	.20
371	4.73	.21	Total Nitrogen			451	4.83	.48	506	5.05	1.26	324	4.80	.11
117	4.70	.09	<u>Modified Comprehensi</u>			307	4.85	.47	Avg	4.84		377	4.80	.06
Avg	4.70		415	6.43 S	33.15	023	4.83	.36	300	4.77	-.39	049	4.78	-.12
027	4.57	-.63	455	5.35 S	11.78	177	4.83	.35	460	4.69	-.87	300	4.77	-.20
368	4.45	-1.18	211	4.83	1.44	095	4.82	.29	Meth: 010.XX PCT			247	4.77	-.25
Meth: 001.XX PCT			470	4.76	.20	405	4.82	.19	Total Nitrogen			292	4.77	-.25
Ammoniacal Nitrogen			Avg	4.76		324	4.80	.10	415	6.43 s	14.41	234	4.78	-.27
500	5.61 s	5.94	493	4.73	-.81	377	4.80	.05	500	5.61 s	7.20	157	4.78	-.27
487	4.85 R	2.49	371	4.72	-.85	Avg	4.79		455	5.35 s	4.92	368	4.76	-.30
506	5.05	2.40	105	4.65 R	-2.80	049	4.78	-.13	389	5.25 s	4.01	470	4.76	-.30
504	4.78	.74	Meth: 010.12 PCT			292	4.77	-.26	452	5.05	2.27	185	4.76	-.36
405	4.76	.61	Total Nitrogen			247	4.77	-.26	506	5.05	2.23	035	4.78	-.37
481	4.71	.58	<u>Salicylic</u>			157	4.78	-.28	485	5.02	2.07	136	4.77	-.49
371	4.73	.47	481	4.98	1.41	234	4.78	-.28	481	4.98	1.72	040	4.75	-.58
456	4.72	.36	504	4.85	.23	368	4.76	-.32	485	5.02	2.07	443	4.75	-.58
090	4.71	.32	Avg	4.82		035	4.78	-.38	481	4.98	1.72	354	4.72	-.60
117	4.70	.26	185	4.76	-.60	136	4.77	-.50	325	4.84 R	1.67	233	4.73	-.61
Avg	4.66		117	4.71	-1.04	040	4.75	-.60	291	4.94	1.25	029	4.76	-.64
498	4.60	-.40	Meth: 010.12 PCT			443	4.75	-.60	034	4.92	1.15	493	4.73	-.64
			Total Nitrogen			354	4.72	-.62	486	4.91	.99	371	4.72	-.69
			<u>Salicylic</u>			233	4.73	-.63	351	4.85	.98	025	4.72	-.76
			481	4.98	1.41									
			504	4.85	.23									
			Avg	4.82										
			185	4.76	-.60									
			117	4.71	-1.04									
			Meth: 010.12 PCT											
			Total Nitrogen											
			<u>Salicylic</u>											
			481	4.98	1.41									
			504	4.85	.23									
			Avg	4.82										
			185	4.76	-.60									
			117	4.71	-1.04									

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

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index			
Meth: 010.XX PCT			Meth: 020.20 PCT			Meth: 020.99 PCT			Meth: 020.XX PCT			Meth: 041.10 PCT					
<u>Total Nitrogen</u>			<u>Total Phosphate</u>			<u>Total Phosphate</u>			<u>Total Phosphate</u>			<u>Dir Available Phosph</u>					
<u>Grav Quimociac</u>			<u>Spectrometric</u>			<u>Other</u>						<u>Grav Quimociac</u>					
117	4.71	-.81	324	7.91	-.94	443	8.81 S	5.59	368	7.95	-.34	102	7.90	-1.28			
105	4.71	-.81	506	7.80	-1.39	460	8.11	.87	504	7.89	-.59						
043	4.70	-.87	481	7.87 R	-1.42	500	8.06	.46	035	7.89	-.66						
460	4.69	-.91	416	7.76	-1.58	Avg	7.99		324	7.91	-.68	Meth: 041.20 PCT					
230	4.72	-.96				455	7.80	-1.24	390	7.83	-.92	<u>Dir Available Phosph</u>					
390	4.67	-1.15	Meth: 020.40 PCT			Meth: 020.XX PCT			455	7.80	-.98	<u>Spectrometric</u>					
102	4.78 R	-1.38	<u>Total Phosphate</u>			<u>Total Phosphate</u>			506	7.80	-1.00	504	7.72	.71			
105	4.65	-1.51	<u>Automated</u>						482	7.82	-1.02						
402	4.59	-1.84	300	8.90 S	5.16	483	9.07 s	4.67	481	7.87 R	-1.02	Meth: 041.40 PCT					
472	4.57	-2.00	027	8.12	1.06	300	8.90 s	3.91	157	8.00 R	-1.04	<u>Dir Available Phosph</u>					
042	4.47	-2.89	105	8.06	.72	443	8.81 s	3.74	416	7.76	-1.14	<u>Automated</u>					
275	4.43 A	-3.21	470	8.06	.71	234	8.69	2.97	456	7.76	-1.16	300	8.89 S	3.09			
489	4.00 s	-7.00	Avg	7.92		451	8.50 R	2.31	389	7.73	-1.29	095	8.01	.82			
			035	7.89	-.45	247	8.35	1.47	472	7.65	-1.65	Avg	7.91				
			456	7.76	-.86	322	8.34	1.44	042	7.64	-1.72	027	7.81	-.91			
			042	7.64	-1.55	406	8.25	1.01	025	7.58	-1.93						
						498	8.20	.92	Meth: 030.20 PCT			Meth: 041.50 PCT					
						402	8.17	.83	<u>Dir Available Phosph</u>			<u>ICP</u>					
			Meth: 020.50 PCT			Meth: 020.XX PCT			<u>Insoluble Phosphate</u>								
			<u>Total Phosphate</u>			<u>Total Phosphate</u>			<u>Spectrometric</u>								
			<u>ICP</u>						504			0.00 .00					
			483	9.07 S	2.93	493	8.13	.49	Meth: 040.20 PCT			360			8.44	2.23	
			234	8.69	1.83	460	8.11	.49	<u>InDir Available Phos</u>			368			8.05	.65	
			451	8.50	1.42	027	8.12	.46	<u>Spectrometri</u>			354			8.07	.55	
			247	8.35	.87	090	8.12	.46	504			023			8.05	.25	
			402	8.17	.47	169	8.10	.45	7.89 .71			043			8.05	.14	
			307	8.20	.45	157	8.12	.45	Meth: 041.10 PCT			Avg			8.02		
			291	8.09	.13	371	8.11	.43	<u>Dir Available Phosph</u>			377			7.99	-.19	
			Avg	8.04		292	8.10	.37	<u>Grav Quimociac</u>			055			7.92	-.58	
			368	7.95	-.29	291	8.09	.33	055			452			7.87	-.86	
			390	7.83	-.67	405	8.06	.26	040			325			7.79	-1.28	
			157	8.00 R	-.68	231	8.06	.20	105			Meth: 041.60 PCT					
			482	7.82	-.73	500	8.06	.19	485			<u>Dir Available Phosph</u>					
			389	7.73	-.91	105	8.06	.18	177			<u>EDTA Extract</u>					
			472	7.65	-1.14	470	8.06	.17	Avg			472			8.36 R	2.40	
			025	7.58	-1.32	Avg	8.02		185			034			8.25	1.46	
						470	8.02	-.02	049			231			8.24	1.35	
						105	8.02	-.02				105			8.09	.29	
												Avg			8.06		

* 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: 041.60 PCT			Meth: 041.XX PCT			Meth: 050.30 PCT			Meth: 050.60 PCT			Meth: 050.99 PCT		
<u>Dir Available Phosph</u>			<u>Dir Available Phosph</u>			<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Soluble Potash</u>		
<u>EDTA Extract</u>						<u>AA (Oxalate)</u>			<u>Flame (Oxalate)</u>			<u>Other</u>		
494	8.05	-.15	136	7.95	-.59	498	21.85	1.47	169	21.00	1.24	042	20.57	-.76
177	8.03	-.22	049	7.93	-.64	Avg	21.07		Avg	20.78		368	20.30	-.99
029	7.99	-.52	055	7.92	-.67	185	20.90	-.36	470	20.71	-.42	460	20.25	-1.04
136	7.95	-.89	102	7.90	-.76	040	20.80	-.77	105	20.64	-.89	402	19.90	-1.77
043	7.85	-1.52	452	7.87	-.96	157	20.75	-.78	Meth: 050.61 PCT			482	19.65	-2.27
Meth: 041.99 PCT			043	7.85	-1.04	Meth: 050.31 PCT			Soluble Potash			481	17.88 s	-6.57
<u>Dir Available Phosph</u>			095	8.01 R	-1.31	<u>Soluble Potash</u>			<u>Flame (Citrate)</u>			275	17.36 s	-6.71
<u>Other</u>			325	7.79	-1.39	<u>AA (Citrate)</u>			494	21.58	1.88	Meth: 050.XX PCT		
Avg	8.10		504	7.72	-1.81	472	14.87 S	.00	034	21.11	.33	<u>Soluble Potash</u>		
105	8.10	-.71	027	7.81 R	-1.92	Meth: 050.50 PCT			Avg	21.02		406	23.95 s	6.62
230	6.99 S	-15.70	230	6.99 s	-5.69	<u>Soluble Potash</u>			456	20.92	-.36	483	22.35	3.11
Meth: 041.XX PCT			Meth: 048.20 PCT			<u>ICP (Oxalate)</u>			105	20.96	-.39	498	21.85	2.02
<u>Dir Available Phosph</u>			<u>Water Soluble Phosph</u>			406			035	20.82	-.68	157	21.80	1.95
300	8.89 s	4.60	<u>Spectrometric</u>			157	21.80	1.19	029	20.74	-1.04	023	21.77	1.83
055	8.49	2.44	405	6.27	.75	324	21.55	1.16	Meth: 050.99 PCT			324	21.55 R	1.82
360	8.44	2.18	Avg	6.22		Avg	21.09		<u>Soluble Potash</u>			451	21.41 R	1.57
472	8.36	1.86	504	6.17	-.97	354	21.04	-.19	<u>Other</u>			494	21.58	1.43
034	8.25	1.17	Meth: 050.00 PCT			055	20.58	-.83	451	21.41 R	1.61	455	21.55	1.36
231	8.24	1.09	<u>Soluble Potash</u>			292	20.49	-1.00	455	21.55	1.51	360	21.39	1.00
368	8.05	.65	<u>STPB Oxalate</u>			Meth: 050.51 PCT			360	21.39	1.18	389	21.33	.91
354	8.07	.52	405	21.33	2.34	<u>Soluble Potash</u>			493	21.33	1.06	405	21.33	.88
105	8.10	.42	494	20.95 R	1.05	<u>ICP (Citrate)</u>			300	21.29	.99	493	21.33	.87
105	8.09	.29	504	21.02	.79	483	22.35	1.86	177	21.25	.91	300	21.29	.79
040	8.05	.28	230	20.90	.53	023	21.77	.90	307	21.16	.84	177	21.25	.69
023	8.05	.22	416	20.96	.44	452	21.46	.40	322	21.12	.65	307	21.16	.67
494	8.05	.12	211	20.92	.26	389	21.33	.27	043	21.06	.55	291	21.18	.55
043	8.05	.09	231	20.88	.12	Avg	21.21		105	20.91	.34	494	20.95	.42
Avg	8.04		Avg	20.87		291	21.18	-.06	234	20.84	.34	322	21.12	.41
177	8.03	-.10	470	20.79	-.43	043	21.02	-.37	504	20.82	.19	034	21.11	.40
485	8.00	-.21	090	20.75	-.69	377	20.94	-.45	500	20.81	.06	354	21.04	.33
377	7.99	-.28	258	20.73	-.71	486	20.72	-.84	Avg	20.78		043	21.02	.33
029	7.99	-.30	049	20.70	-.90	025	20.87 R	-1.24	027	20.77	-.05	043	21.06	.29
177	7.97	-.39	102	20.60	-1.37	485	20.17	-1.71	390	20.48	-.59	105	20.96	.23
105	7.98	-.39	055	20.05 s	-4.19	Meth: 050.61 PCT			506	20.45	-.66	504	21.02	.21
185	7.97	-.41				<u>Soluble Potash</u>			325	20.55	-.67	169	21.00	.18

* 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: 050.XX PCT</u>			<u>Meth: 050.XX PCT</u>			<u>Meth: 101.30 PCT</u>			<u>Meth: 101.XX PCT</u>			<u>Meth: 121.30 PCT</u>		
<u>Soluble Potash</u>			<u>Soluble Potash</u>			<u>Acid Soluble Calcium</u>			<u>Acid Soluble Calcium</u>			<u>Acid Soluble Magnesi</u>		
416	20.96	.06	481	17.88 s	-7.64	ICP			035	5.54	-1.29	ICP		
377	20.94	.03	275	17.36 s	-7.84	324	6.15	1.33	506	4.73 s	-3.83	231	1.24	-.45
Avg	20.93		472	14.87 s	-13.34	494	6.12	1.17	177	1.30 s	-14.61	368	1.24	-.47
211	20.92	-.02				354	6.02	.87				055	1.23	-.66
456	20.92	-.09	<u>Meth: 060.00 PCT</u>			049	6.02	.87	<u>Meth: 121.00 PCT</u>			035	1.22	-.74
231	20.88	-.12	<u>Free Water</u>			041	6.02 X	.77	<u>Acid Soluble Magnesi</u>			102	1.19	-1.11
185	20.90	-.16	<u>Vacuum Oven</u>			472	5.94	.33	<u>AA</u>			433	1.18	-1.33
230	20.90	-.23	416	0.81	1.44	307	5.89	.19	504	1.54	1.92	247	1.17	-1.42
035	20.82	-.25	Avg	0.65		Avg	5.86		169	1.47	1.21	291	1.15	-1.72
500	20.81	-.27	247	0.65	-.07	247	5.75	-.53	493	1.40	.37	482	0.96 s	-4.40
105	20.91	-.27	456	0.63	-.27	102	5.71	-.70	258	1.39	.23	230	0.93 s	-4.79
504	20.82	-.31	007	0.53	-1.16	389	5.65	-1.01	Avg	1.37		307	0.69 s	-8.07
470	20.79	-.32				482	5.56	-1.43	043	1.34	-.36			
027	20.77	-.35	<u>Meth: 060.20 PCT</u>			035	5.54	-1.51	040	1.30	-.74	<u>Meth: 121.99 PCT</u>		
234	20.84	-.42	<u>Free Water</u>			177	1.30 s	-20.61	485	1.30	-.80	<u>Acid Soluble Magnesi</u>		
090	20.75	-.42	<u>Karl Fischer</u>						105	1.29	-.88	<u>Other</u>		
258	20.73	-.44	504	0.86	.71	<u>Meth: 101.99 PCT</u>			498	1.28	-1.04	042	1.51	1.17
470	20.71	-.48				<u>Acid Soluble Calcium</u>			481	0.11 s	-14.26	Avg	1.30	
029	20.74	-.51	<u>Meth: 060.XX PCT</u>			<u>Other</u>						506	1.29	-.06
049	20.70	-.52	<u>Free Water</u>			506	4.73 S	.00	<u>Meth: 121.30 PCT</u>			486	1.11	-1.06
486	20.72	-.54	504	0.86	1.27	<u>Acid Soluble Magnesi</u>			<u>ICP</u>					
105	20.64	-.66	416	0.81	.90	<u>Meth: 101.XX PCT</u>			483	1.46	2.54	<u>Meth: 121.XX PCT</u>		
157	20.75	-.68	Avg	0.69		<u>Acid Soluble Calcium</u>			472	1.40	1.79	<u>Acid Soluble Magnesi</u>		
040	20.80	-.72	247	0.65	-.36	483	6.85	2.85	452	1.39	1.63	504	1.54	2.19
102	20.60	-.72	456	0.63	-.53	324	6.15	.69	095	1.29	.39	042	1.51 R	2.04
055	20.58	-.78	007	0.53	-1.29	494	6.12	.58	049	1.30	.38	169	1.47	1.65
390	20.48	-.99				049	6.02	.43	360	1.29	.31	483	1.46	1.52
325	20.55	-1.00	<u>Meth: 101.00 PCT</u>			354	6.02	.43	041	1.29 X	.28	472	1.40	1.07
292	20.49	-1.03	<u>Acid Soluble Calcium</u>			041	6.02 X	.34	136	1.29	.28	493	1.40	1.04
506	20.45	-1.06	<u>AA</u>			504	5.96	.26	157	1.29	.27	452	1.39	.98
042	20.57	-1.07	504	5.96	1.20	Avg	5.94		354	1.28	.19	258	1.39	.94
368	20.30	-1.43	Avg	5.95		472	5.94	-.02	494	1.29	.19	043	1.34	.58
025	20.87 R	-1.49	105	5.93	-.24	105	5.93	-.03	389	1.28	.11	095	1.29	.23
460	20.25	-1.50				307	5.89	-.20	023	1.28	.06	040	1.30	.23
485	20.17	-1.67	<u>Meth: 101.30 PCT</u>			247	5.75	-.61	Avg	1.27		049	1.30	.22
055	20.05	-1.94	<u>Acid Soluble Calcium</u>			102	5.71	-.73	390	1.27	-.14	105	1.29	.20
402	19.90	-2.30	<u>ICP</u>			389	5.65	-.94	324	1.27	-.28	485	1.30	.19
482	19.65 A	-2.86	483	6.85 s	4.44	482	5.56	-1.23				360	1.29	.18

* 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			Meth: 131.30 PCT			Meth: 144.02 PCT			Meth: 144.XX PCT			Meth: 144.XX PCT		
<u>Acid Soluble Magnesi</u>			<u>Water Soluble Magnes</u>			<u>Sulfur</u>			<u>Sulfur</u>			<u>Sulfur</u>		
136	1.29	.17	ICP			Gravimetric			360	10.85	1.75	498	8.60 s	-4.19
041	1.29 X	.17	230	1.01	-1.16	292	10.81	.87	493	10.83	1.69	035	4.37 s	-15.30
157	1.29	.16	Meth: 131.99 PCT			494	10.15	-.87	291	10.82	1.68	Meth: 151.00 PPM		
506	1.29	.14	<u>Water Soluble Magnes</u>			Meth: 144.70 PCT			292	10.81	1.65	Arsenic		
498	1.28	.13	<u>Other</u>			<u>Sulfur</u>			452	10.79	1.59	<u>Atomic Absorption</u>		
354	1.28	.11	498	0.53	.71	<u>Spectrometric</u>			389	10.57	1.01	136	25.25	.86
494	1.29	.11	Meth: 131.XX PCT			506	9.46	-.71	043	10.53	.92	Avg	19.80	
389	1.28	.06	<u>Water Soluble Magnes</u>			Meth: 144.99 PCT			055	10.50	.84	498	14.35	-.87
023	1.28	.03	452	1.28	.86	<u>Sulfur</u>			486	10.46	.73	Meth: 151.30 PPM		
Avg	1.27		275	1.26	.80	<u>Other</u>			504	10.35	.43	Arsenic		
390	1.27	-.09	485	1.16	.40	360	10.85	1.71	483	10.30	.41	<u>ICP</u>		
324	1.27	-.17	231	1.07	.08	291	10.82	1.65	177	10.30	.32	368	28.70	1.03
231	1.24	-.27	Avg	1.05		452	10.79	1.56	324	10.30	.31	247	28.35	.95
368	1.24	-.29	230	1.01	-.15	389	10.57	1.04	485	10.23	.25	049	28.35	.92
055	1.23	-.40	498	0.53	-1.98	486	10.46	.79	481	10.26	.25	Avg	25.27	
035	1.22	-.45	Meth: 144.01 PCT			483	10.30	.47	095	10.27	.24	095	25.00	-.08
102	1.19	-.67	<u>Sulfur</u>			177	10.30	.42	354	10.18	.22	102	24.86	-.18
433	1.18	-.81	<u>Gravimetric</u>			354	10.18	.24	102	10.23	.16	481	20.95	-1.30
247	1.17	-.86	493	10.83	2.36	027	10.20	.17	157	10.20	.05	230	20.70	-1.39
291	1.15	-1.04	043	10.53	1.12	Avg	10.13		494	10.15	-.12	Meth: 151.XX PPM		
486	1.11	-1.41	055	10.50	.99	023	10.02	-.26	029	10.10	-.24	Arsenic		
482	0.96	-2.65	504	10.35	.35	102	10.06	-.31	105	10.03	-.41	368	28.70	1.01
230	0.93	-2.89	324	10.30	.15	029	9.94	-.65	023	10.02	-.42	247	28.35	.95
307	0.69 s	-4.86	095	10.27	.09	368	9.85	-.67	102	10.06	-.44	049	28.35	.94
481	0.11 s	-9.74	Avg	10.26		351	9.77	-.89	230	9.97	-.56	136	25.25	.26
Meth: 131.00 PCT			102	10.23	-.19	504	9.73	-.98	231	9.91	-.71	095	25.00	.21
<u>Water Soluble Magnes</u>			481	10.26	-.21	390	9.69	-1.05	029	9.94	-.82	102	24.86	.20
<u>AA</u>			157	10.20	-.27	472	9.66	-1.11	368	9.85	-.88	Avg	24.06	
485	1.16	.71	485	10.23	-.36	307	9.63	-1.24	351	9.77	-1.12	481	20.95	-.68
Meth: 131.30 PCT			029	10.10	-.71	275	9.61	-1.25	504	9.73	-1.23	230	20.70	-.75
<u>Water Soluble Magnes</u>			105	10.03	-1.01	482	9.50 R	-1.70	390	9.69	-1.31	498	14.35	-2.12
<u>ICP</u>			230	9.97	-1.24	035	4.37 s	-13.69	472	9.66	-1.37			
452	1.28	.99	231	9.91	-1.49				307	9.63	-1.51			
275	1.26	.85	498	8.60 s	-7.03				275	9.61	-1.52			
Avg	1.15								506	9.46	-1.93			
231	1.07	-.67							482	9.50 R	-2.01			

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
Meth: 165.00 PCT			Meth: 165.XX PCT			Meth: 181.00 PPM			Meth: 190.00 PCT			Meth: 191.00 PPM		
Acid Soluble Boron			Acid Soluble Boron			Cadmium			Water Soluble Chlori			Chromium		
<u>Spectrometric</u>			<u>Atomic Absorption</u>			<u>Titrimetric</u>			<u>Atomic Absorption</u>					
029	0.345	1.15	042	0.445	2.54	498	10.90	-1.28	Avg	16.59		506	50.05	.86
481	0.335 R	.96	231	0.405	1.53				117	16.45	-.20	Avg	41.53	
023	0.332	.69	483	0.401	1.42	Meth: 181.30 PPM			504	16.31	-.28	481	33.00	-.87
Avg	0.311		043	0.400	1.40	Cadmium			498	16.25	-.36	Meth: 191.30 PPM		
055	0.288	-.78	291	0.375	.78	<u>ICP</u>			029	16.13	-.45	Chromium		
506	0.280	-1.05	360	0.371	.74	095	12.50	1.55	102	16.08	-.50	<u>ICP</u>		
			389	0.360	.40	247	11.85	.67	028	16.06	-.54	035	40.95	1.81
			485	0.357	.38	035	11.85	.58	494	15.97	-.60	452	35.01	.45
			368	0.350	.13	482	11.85	.46	043	15.60	-.97	Avg	33.04	
			095	0.345	.13	Avg	11.53		506	15.20 R	-1.41	102	32.71	-.08
			Avg	0.345		029	0.345	-.14	Meth: 190.99 PCT			368	32.00	-.30
			029	0.345	-.14	472	0.335	-.27	Water Soluble Chlori			482	29.55	-.80
			472	0.335	-.27	482	0.340	-.28	<u>Other</u>			230	28.05	-1.14
			482	0.340	-.28	023	0.332	-.34	029	16.33	.90	Meth: 191.XX PPM		
			023	0.332	-.34	504	0.330	-.37	Avg	15.25		<u>Chromium</u>		
			504	0.330	-.37	452	0.330	-.37	368	14.17	-.84	506	50.05	2.15
			452	0.330	-.37	481	0.335 R	-.45	Meth: 190.XX PCT			035	40.95	.84
			481	0.335 R	-.45	354	0.325	-.52	<u>Water Soluble Chlori</u>			Avg	35.16	
			354	0.325	-.52	307	0.324	-.55	055	18.76	1.98	452	35.01	-.02
			307	0.324	-.55	433	0.319	-.65	481	18.27	1.58	481	33.00	-.34
			433	0.319	-.65	324	0.307	-.96	117	16.45	.14	102	32.71	-.35
			324	0.307	-.96	230	0.308	-.97	Avg	16.37		368	32.00	-.47
			230	0.308	-.97	486	0.305	-1.01	504	16.31	-.06	482	29.55	-.81
			486	0.305	-1.01	055	0.288	-1.44	498	16.25	-.16	230	28.05	-1.03
			055	0.288	-1.44	506	0.280	-1.64	029	16.13	-.20	Meth: 202.00 PPM		
			506	0.280	-1.64	Meth: 171.99 PCT			102	16.08	-.24	Acid Soluble Cobalt		
			Meth: 171.99 PCT			Water Soluble Boron			028	16.06	-.28	<u>AA</u>		
			Water Soluble Boron			<u>Other</u>			494	15.97	-.33	504	13.37 S	30.04
			<u>Other</u>			027	0.349	.71	029	16.33 R	-.35	506	2.75	.71
			Meth: 181.00 PPM			Meth: 190.00 PCT			494	15.97	-.33	Avg	2.75	
			Cadmium			Water Soluble Chlori			043	15.60	-.64			
			<u>Atomic Absorption</u>			<u>Titrimetric</u>			506	15.20 R	-1.02			
			136	12.00	.66	055	18.76	2.12	368	14.17	-1.83			
			506	12.00	.64	481	18.27	1.64						
			Avg	11.63										

* 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: 202.30 PPM			Meth: 221.30 PCT			Meth: 221.XX PCT			Meth: 241.30 PCT			Meth: 241.XX PCT		
<u>Acid Soluble Cobalt</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Copper</u>			<u>Acid Soluble Iron</u>			<u>Acid Soluble Iron</u>		
<u>ICP</u>			<u>ICP</u>			<u>ICP</u>			<u>ICP</u>			<u>ICP</u>		
494	5.39	1.48	049	0.0519	1.71	324	0.0461	-0.59	390	0.47	.36	354	0.49	.89
095	5.00	1.04	102	0.0495	1.17	433	0.0456	-0.73	482	0.47	.35	485	0.49	.83
035	4.74 R	.98	035	0.0503	1.00	027	0.0450	-0.88	049	0.47	.35	157	0.49	.82
Avg	4.06		402	0.0500	.88	307	0.0445	-1.09	494	0.46	.33	042	0.48 R	.79
368	3.95	-0.13	041	0.0495 X	.84	506	0.0450 R	-1.59	231	0.46	.30	043	0.48	.68
482	3.70	-0.41	482	0.0500	.78	481	0.0400	-2.20	102	0.46	.21	105	0.48	.68
102	3.24	-0.91	354	0.0485	.64	230	0.0334 s	-3.95	136	0.46	.18	360	0.48	.58
230	3.07	-1.10	389	0.0485	.27	Meth: 241.00 PCT			Avg	0.45		351	0.47	.51
Meth: 202.XX PPM			Avg	0.0481		<u>Acid Soluble Iron</u>			368	0.44	-0.10	177	0.47	.41
<u>Acid Soluble Cobalt</u>			390	0.0477	-0.20	<u>Atomic Absorption</u>			389	0.44	-0.19	390	0.47	.39
504	13.37 s	9.87	472	0.0480	-0.41	029	0.51	1.11	035	0.45	-0.32	049	0.47	.37
494	5.39	1.58	494	0.0462	-0.78	485	0.49	.83	291	0.42	-0.48	482	0.47	.37
095	5.00	1.17	324	0.0461	-0.81	105	0.48	.70	433	0.42	-0.51	494	0.46	.36
035	4.74 R	1.07	433	0.0456	-1.02	043	0.48	.70	402	0.41	-0.64	231	0.46	.33
368	3.95	.10	027	0.0450	-1.26	351	0.47	.55	095	0.42	-0.69	035	0.45	.31
Avg	3.87		307	0.0445	-1.59	506	0.46	.29	472	0.40	-0.76	102	0.46	.24
482	3.70	-0.21	230	0.0334 s	-6.02	258	0.44	.26	486	0.40	-0.81	136	0.46	.22
102	3.24	-0.67	Meth: 221.XX PCT			Avg	0.44		452	0.40	-0.89	506	0.46	.22
230	3.07	-0.83	<u>Acid Soluble Copper</u>			493	0.44	-0.22	023	0.34	-1.84	Avg	0.44	
506	2.75	-1.19	368	0.0622 s	3.69	504	0.42	-0.23	230	0.31	-2.35	368	0.44	-0.05
Meth: 221.00 PCT			105	0.0575 s	3.67	169	0.43	-0.30	307	0.31	-2.39	389	0.44	-0.13
<u>Acid Soluble Copper</u>			095	0.0565	2.33	498	0.33	-1.55	247	0.26 S	-3.23	493	0.44	-0.28
<u>Atomic Absorption</u>			504	0.0535	1.41	481	0.28	-2.35	Meth: 241.99 PCT			258	0.44	-0.29
105	0.0575 S	2.57	049	0.0519	1.04	Meth: 241.30 PCT			<u>Acid Soluble Iron</u>			504	0.42	-0.38
504	0.0535	1.21	102	0.0495	.72	<u>Acid Soluble Iron</u>			<u>Other</u>			169	0.43	-0.39
043	0.0475	.24	035	0.0503	.58	<u>ICP</u>			042			291	0.42	-0.41
Avg	0.0465		402	0.0500	.51	324	0.55	1.80	042			433	0.42	-0.43
506	0.0450	-0.88	041	0.0495 X	.50	483	0.52	1.21	Meth: 241.XX PCT			402	0.41	-0.56
481	0.0400	-1.10	482	0.0500	.43	027	0.51	1.06	<u>Acid Soluble Iron</u>			095	0.42	-0.62
Meth: 221.30 PCT			354	0.0485	.40	234	0.51	1.03	324			472	0.40	-0.68
<u>Acid Soluble Copper</u>			389	0.0485	.14	041	0.50 X	.96	483			486	0.40	-0.73
<u>ICP</u>			Avg	0.0484		055	0.50	.96	029			452	0.40	-0.80
368	0.0622 s	5.84	390	0.0477	-0.19	354	0.49	.89	027			023	0.34	-1.71
095	0.0565 s	3.73	472	0.0480	-0.28	157	0.49	.82	234			498	0.33	-1.87
Meth: 221.30 PCT			043	0.0475	-0.35	360	0.48	.56	055			230	0.31	-2.19
<u>Acid Soluble Copper</u>			494	0.0462	-0.58	177	0.47	.38	041			307	0.31	-2.22
<u>ICP</u>									041			481	0.28	-2.77
368	0.0622 s	5.84							041			247	0.26 s	-3.02
095	0.0565 s	3.73							041					

* 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: 251.00 PPM			Meth: 261.00 PCT			Meth: 261.30 PCT			Meth: 261.XX PCT			Meth: 281.XX PPM		
Lead			Acid Soluble Manganese			Acid Soluble Manganese			Acid Soluble Manganese			Mercury		
<u>Atomic Absorption</u>			<u>AA</u>			<u>ICP</u>			<u>ICP</u>			<u>Atomic Absorption</u>		
506	155.50	.14	043	0.043	1.33	433	0.035	-.38	486	0.040	.52	481	8.35	.87
Avg	154.75		029	0.041	.97	494	0.035	-.39	247	0.040	.52	Avg	4.22	
136	154.00	-1.22	493	0.041	.49	095	0.036	-.49	482	0.040	.52	230	0.09	-.87
498	20.15 S	-20.39	485	0.041	.31	035	0.035	-.52	506	0.040	.52	Meth: 289.00 PPM		
Meth: 251.30 PPM			Meth: 261.11 PCT			Meth: 261.31 PCT			Meth: 261.99 PCT			Meth: 289.30 PPM		
Lead			Acid Soluble Manganese			Acid Soluble Manganese			Acid Soluble Manganese			Molybdenum		
<u>ICP</u>			<u>AA</u>			<u>ICP</u>			<u>ICP</u>			<u>Atomic Absorption</u>		
035	181.00 R	3.45	498	0.050	1.17	494	0.035	-.55	360	0.039	.39	504	0.039	.30
247	145.60	1.40	Avg	0.042		389	0.035	-.56	504	0.039	.30	Avg	0.038	
368	136.00	.97	105	0.039	-.62	027	0.033	-.98	354	0.037	-.26	354	0.037	-.26
452	134.40	.77	040	0.037	-.86	055	0.035 R	-1.40	402	0.037	-.27	402	0.037	-.27
049	130.32	.55	Meth: 261.30 PCT			Meth: 261.99 PCT			Meth: 261.99 PCT			Meth: 289.30 PPM		
095	124.00	.19	Acid Soluble Manganese			Acid Soluble Manganese			Acid Soluble Manganese			Molybdenum		
Avg	120.73		<u>ICP</u>			<u>Other</u>			<u>ICP</u>			<u>ICP</u>		
482	115.00	-.39	291	0.065 s	7.75	042	0.045	.71	041	0.037 X	-.27	117	29.60 s	6.07
027	111.32	-.53	390	0.048 s	4.28	Meth: 261.XX PCT			040	0.037	-.67	102	16.45	1.12
481	95.45	-1.42	136	0.046	2.44	Acid Soluble Manganese			389	0.035	-.69	049	18.50	.96
230	94.45	-1.49	452	0.041	1.07	Other			472	0.034	-.96	095	18.00	.72
Meth: 251.XX PPM			247	0.040	.93	Meth: 261.99 PCT			095	0.036	-.57	035	17.80	.67
Lead			482	0.040	.93	Acid Soluble Manganese			035	0.035	-.66	368	17.45	.53
035	181.00 R	2.63	486	0.040	.93	Acid Soluble Manganese			040	0.037	-.67	Avg	16.43	
506	155.50	1.36	360	0.039	.77	Other			389	0.035	-.69	433	15.82	-.29
136	154.00	1.34	354	0.037	.30	Other			472	0.034	-.96	452	15.74	-.32
247	145.60	.89	Avg	0.037		Other			027	0.033	-1.03	494	15.38	-1.27
368	136.00	.58	041	0.037 X	-.13	Other			368	0.035 R	-1.23	230	12.75	-1.81
452	134.40	.36	402	0.037	-.13	Other			055	0.035 R	-1.23	Meth: 289.XX PPM		
049	130.32	.19	049	0.036	-.23	Other			157	0.031	-1.59	Molybdenum		
Avg	126.91		023	0.036	-.31	Other			230	0.029	-1.92	506	32.50 s	3.29
095	124.00	-.15	102	0.036	-.31	Other			481	0.028	-2.21	117	29.60	2.61
482	115.00	-.60	Meth: 261.30 PCT			Meth: 261.99 PCT			Meth: 261.99 PCT			049	18.50	.18
027	111.32	-.74	Acid Soluble Manganese			Acid Soluble Manganese			Acid Soluble Manganese			035	17.80	.11
481	95.45	-1.50	<u>ICP</u>			<u>Other</u>			<u>ICP</u>			095	18.00	.06
230	94.45	-1.55	291	0.065 s	7.75	Other			Meth: 281.00 PPM			Avg	17.75	
498	20.15 s	-5.07	390	0.048 s	4.28	Other			Mercury			368	17.45	-.14
Meth: 251.XX PPM			452	0.041	1.07	Other			Atomic Absorption			433	15.82	-.42
Lead			247	0.040	.93	Other			Atomic Absorption			452	15.74	-.44
035	181.00 R	2.63	482	0.040	.93	Other			Atomic Absorption			102	16.45	-.61
506	155.50	1.36	486	0.040	.93	Other			Atomic Absorption			494	15.38	-.76
136	154.00	1.34	360	0.039	.77	Other			Atomic Absorption			230	12.75	-1.14
247	145.60	.89	354	0.037	.30	Other			Atomic Absorption					
368	136.00	.58	Avg	0.037		Other			Atomic Absorption					
452	134.40	.36	041	0.037 X	-.13	Other			Atomic Absorption					
049	130.32	.19	402	0.037	-.13	Other			Atomic Absorption					
Avg	126.91		049	0.036	-.23	Other			Atomic Absorption					
095	124.00	-.15	023	0.036	-.31	Other			Atomic Absorption					
482	115.00	-.60	102	0.036	-.31	Other			Atomic Absorption					
027	111.32	-.74	Meth: 261.30 PCT			Meth: 261.99 PCT			Meth: 261.99 PCT					
481	95.45	-1.50	Acid Soluble Manganese			Acid Soluble Manganese			Acid Soluble Manganese					
230	94.45	-1.55	<u>ICP</u>			<u>Other</u>			<u>ICP</u>					
498	20.15 s	-5.07	ICP			Other			ICP					
Meth: 251.XX PPM			ICP			Other			ICP					
Lead			ICP			Other			ICP					
035	181.00 R	2.63	ICP			Other			ICP					
506	155.50	1.36	ICP			Other			ICP					
136	154.00	1.34	ICP			Other			ICP					
247	145.60	.89	ICP			Other			ICP					
368	136.00	.58	ICP			Other			ICP					
452	134.40	.36	ICP			Other			ICP					
049	130.32	.19	ICP			Other			ICP					
Avg	126.91		ICP			Other			ICP					
095	124.00	-.15	ICP			Other			ICP					
482	115.00	-.60	ICP			Other			ICP					
027	111.32	-.74	ICP			Other			ICP					
481	95.45	-1.50	ICP			Other			ICP					
230	94.45	-1.55	ICP			Other			ICP					
498	20.15 s	-5.07	ICP			Other			ICP					

* 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: 291.00 PPM Nickel <u>Atomic Absorption</u>			Meth: 311.00 PCT Sodium <u>Atomic Absorption</u>			Meth: 321.00 PCT Acid Soluble Zinc <u>Atomic Absorption</u>			Meth: 321.30 PCT Acid Soluble Zinc <u>ICP</u>			Meth: 321.XX PCT Acid Soluble Zinc <u>ICP</u>		
506	6.50	.00	506	0.56	.00	485	1.355	-.75	041	1.270 S	-2.45	389	1.390	-.37
Meth: 291.30 PPM Nickel <u>ICP</u>			Meth: 311.99 PCT Sodium <u>Other</u>			Meth: 321.30 PCT Acid Soluble Zinc <u>ICP</u>			Meth: 321.99 PCT Acid Soluble Zinc <u>Other</u>			Meth: 321.XX PCT Acid Soluble Zinc <u>ICP</u>		
035	25.30 s	3.42	324	0.60	1.62	055	1.645	2.24	042	1.445	.71	169	1.380	-.47
247	22.85	2.39	102	0.59	.84	483	1.625	2.00	Meth: 321.XX PCT <u>Acid Soluble Zinc</u>			102	1.362	-.66
095	14.00	.32	Avg	0.58		452	1.555	1.28	481	1.815 s	4.46	247	1.355	-.73
Avg	13.21		494	0.57	-.42	035	1.545	1.18	055	1.645	2.46	485	1.355	-.73
452	12.70	-.13	354	0.56	-.72	324	1.520	.97	483	1.625	2.20	049	1.345	-.84
368	12.05	-.37	035	0.56	-.74	023	1.433 R	.77	452	1.555	1.42	390	1.370	-.86
102	11.47	-.43	482	0.56	-.96	360	1.496	.69	035	1.545	1.32	040	1.418 R	-.95
049	11.53	-.44	Meth: 311.XX PCT <u>Sodium</u>			291	1.490	.66	324	1.520	1.09	095	1.335	-.98
230	11.31	-.65	324	0.60	1.79	486	1.480	.54	498	1.510	.94	482	1.335	-.98
482	9.80	-.86	102	0.59	.98	494	1.427	.48	023	1.433 R	.83	472	1.318	-1.14
Meth: 291.XX PPM <u>Nickel</u>			494	0.57	-.33	157	1.465	.41	504	1.490	.79	307	1.327	-1.21
035	25.30 R	3.31	354	0.56	-.66	231	1.460	.35	360	1.496	.78	043	1.310	-1.22
247	22.85	2.38	035	0.56	-.67	027	1.455	.32	291	1.490	.75	029	1.310	-1.35
095	14.00	.42	506	0.56	-.72	292	1.450	.25	506	1.490	.75	433	1.282	-1.52
452	12.70	.05	482	0.56	-.90	368	1.450	.25	486	1.480	.62	230	1.240	-2.01
Avg	12.47		Meth: 321.00 PCT Acid Soluble Zinc <u>Atomic Absorption</u>			Avg	1.427		494	1.427	.52	041	1.270 s	-2.62
102	11.47	-.23	481	1.815 s	5.75	177	1.408	-.19	157	1.465	.48	354	0.471 s	-10.23
368	12.05	-.24	498	1.510	1.35	136	1.410	-.19	231	1.460	.41			
049	11.53	-.24	040	1.418 R	1.20	402	1.410	-.34	027	1.455	.38			
230	11.31	-.49	504	1.490	1.15	389	1.390	-.38	292	1.450	.31			
482	9.80	-.62	506	1.490	1.11	102	1.362	-.65	368	1.450	.31			
506	6.50	-1.37	040	1.418 R	1.20	247	1.355	-.71	042	1.445	.24			
Meth: 301.30 PPM Selenium <u>ICP</u>			504	1.490	1.15	049	1.345	-.81	258	1.430	.23			
095	0.00	.00	506	1.490	1.11	390	1.370	-.82	Avg	1.423				
			258	1.430	.38	095	1.335	-.95	105	1.414	-.12			
			351	1.413	.21	482	1.335	-.95	177	1.408	-.16			
			105	1.414	.10	472	1.318	-1.09	136	1.410	-.18			
			Avg	1.410		307	1.327	-1.15	351	1.413	-.19			
			169	1.380	-.43	433	1.282	-1.44	402	1.410	-.35			

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

Method Evaluation - Z Values Based on 1 Reports

Method Code	Number Of Labs	Avg Bias of Labs	Std Dev of Biases	Std Dev Within Labs	Method Code	Number Of Labs	Avg Bias of Labs	Std Dev of Biases	Std Dev Within Labs
001.10	9	0.07	0.98	0.24	121.99	3	0.00	1.09	0.19
001.99	7	0.71	1.81	0.62	121.XX	39	- 0.32	2.01	0.13
001.XX	16	0.44	1.76	0.57	131.30	4	0.00	1.07	0.11
009.10	6	0.00	0.95	0.41	131.XX	6	0.00	1.05	0.05
009.XX	6	0.00	0.95	0.41	144.01	15	- 0.47	2.05	0.25
010.11	7	6.10	12.82	0.71	144.02	2	0.00	1.22	0.05
010.12	4	0.00	1.06	0.20	144.99	21	- 0.72	3.13	0.29
010.60	48	- 0.13	1.57	0.43	144.XX	36	- 0.57	2.80	0.29
010.99	4	1.16	2.49	0.09	151.00	2	0.00	1.22	0.05
010.XX	62	0.35	2.56	0.39	151.30	7	0.00	1.03	0.14
020.10	7	0.00	1.02	0.18	151.XX	9	0.00	1.03	0.10
020.20	12	- 0.08	0.96	0.44	165.00	5	0.162	0.999	0.242
020.40	7	0.73	2.14	0.36	165.99	19	0.000	1.001	0.159
020.50	14	0.20	1.20	0.28	165.XX	25	- 0.010	0.981	0.158
020.99	4	1.31	2.77	0.98	181.00	3	0.00	1.11	0.10
020.XX	41	0.32	1.46	0.38	181.30	9	- 0.57	1.91	0.44
041.10	8	1.17	3.40	0.49	181.XX	12	- 0.46	1.82	0.41
041.40	3	1.03	1.81	0.66	190.00	11	- 0.12	1.05	0.14
041.50	9	0.00	0.98	0.30	190.99	2	0.00	1.18	0.23
041.60	9	0.24	1.19	0.39	190.XX	12	- 0.07	1.01	0.14
041.99	2	- 7.85	11.10	0.50	191.00	2	0.00	1.22	0.07
041.XX	27	- 0.11	1.68	0.56	191.30	6	0.00	1.04	0.11
048.20	2	0.00	1.04	0.46	191.XX	8	0.00	1.03	0.08
048.XX	2	0.00	1.04	0.46	202.00	2	15.02	21.24	0.50
050.00	13	- 0.29	1.49	0.33	202.30	7	0.11	0.99	0.25
050.30	4	0.00	0.99	0.38	202.XX	9	1.20	3.39	0.23
050.50	6	0.77	2.06	0.41	221.00	5	0.3715	1.1678	0.8887
050.51	10	- 0.06	0.98	0.37	221.30	18	0.1772	2.3263	0.5861
050.60	3	0.00	1.07	0.26	221.XX	23	0.0531	1.5297	0.7274
050.61	6	0.00	1.01	0.25	241.00	12	0.00	1.01	0.14
050.99	24	- 0.47	2.01	0.75	241.30	31	- 0.10	1.13	0.19
050.XX	59	- 0.36	2.55	0.66	241.XX	44	- 0.05	1.07	0.19
060.00	4	0.00	1.07	0.10	251.00	3	- 6.80	11.77	0.72
060.XX	5	0.00	1.06	0.09	251.30	10	0.34	1.43	0.28
101.00	2	0.00	0.29	0.84	251.XX	13	- 0.19	1.87	0.23
101.30	14	- 1.16	5.80	0.26	261.00	8	- 0.606	1.923	0.392
101.XX	17	- 1.08	3.72	0.22	261.11	3	0.000	1.028	0.360
121.00	10	- 1.43	4.61	0.14	261.30	26	0.381	1.841	0.766
121.30	26	- 0.66	2.17	0.17	261.XX	39	0.223	1.390	0.568

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.XX	2	0.000	1.225	0.007					
289.30	10	0.61	2.07	0.57					
289.XX	11	0.29	1.35	0.31					
291.30	9	0.33	1.38	0.58					
291.XX	10	0.29	1.33	0.51					
311.99	6	0.00	0.95	0.41					
311.XX	7	0.00	0.95	0.39					
321.00	12	0.463	1.804	0.687					
321.30	31	- 0.355	1.952	0.446					
321.XX	43	- 0.194	1.943	0.500					