

- Pass 1 Results for 79 Labs - - Pass 2 Results for 78 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	6	8.1017	0.2756	0.0600	5	8.0420	0.2587	0.0320
Ammoniacal Nitrogen, Other		001.99	8	8.2693	0.3432	0.0913	7	8.2324	0.3458	0.0552
Method Group 001.XX PCT			14	8.1975	0.3218	0.0779	13	8.1720	0.3163	0.0574
Nitrate Nitrogen, Robertson	930.01	002.10	1	7.8400	0.0000	0.0000	1	7.8400	0.0000	0.0000
Nitrate Nitrogen, Other		002.99	6	7.7550	0.5865	0.0967	5	7.7270	0.6384	0.0420
Method Group 002.XX PCT			7	7.7671	0.5404	0.0829	6	7.7458	0.5791	0.0350
Nitrogen From Urea, Urease (as N)	959.03	005.00	4	18.355	3.7080	0.0400	4	18.355	3.7080	0.0400
Nitrogen From Urea, Other		005.99	2	16.508	0.2411	0.0287	2	16.508	0.2411	0.0287
Method Group 005.XX PCT			6	17.739	3.0972	0.0362	6	17.739	3.0972	0.0362
Ammon & Nitrate N, Devarda	892.01	009.10	2	23.025	8.5160	0.0500	2	23.025	8.5160	0.0500
Total Nitrogen, Reduced Iron		010.10	1	32.785	0.1626	0.2300	1	32.785	0.1626	0.2300
Total Nitrogen, Modified Comprehensive	978.02	010.11	9	31.888	0.4895	0.1246	8	31.934	0.4916	0.0714
Total Nitrogen, Salicylic	955.04D	010.12	3	31.840	0.2469	0.0319	3	31.840	0.2469	0.0319
Total Nitrogen, Raney	970.03	010.16	1	32.265	0.0212	0.0300	1	32.265	0.0212	0.0300
Total Nitrogen, Comprehensive	970.02	010.17	1	33.020	0.0283	0.0400	1	33.020	0.0283	0.0400
Total Nitrogen, Combustion		010.60	38	32.373	0.2780	0.1089	35	32.393	0.2292	0.0737
Total Nitrogen, Other		010.99	3	31.939	0.2222	0.1013	3	31.939	0.2222	0.1013
Method Group 010.XX PCT			59	32.213	0.4642	0.1471	53	32.290	0.3724	0.0794
Total Phosphate, Grav Quimociac	962.02	020.10	8	22.169	0.3698	0.0800	8	22.169	0.3698	0.0800
Total Phosphate, Spectrometric	958.01	020.20	20	22.197	0.4563	0.1661	19	22.237	0.4257	0.1449
Total Phosphate, Alka. Quimociac	969.02	020.30	1	22.616	0.0525	0.0742	1	22.616	0.0525	0.0742
Total Phosphate, Automated	978.01	020.40	8	22.296	0.1878	0.1300	8	22.296	0.1878	0.1300
Total Phosphate, ICP		020.50	5	22.846	0.6875	0.4039	5	22.846	0.6875	0.4039
Total Phosphate, Other		020.99	1	22.155	0.0071	0.0100	1	22.155	0.0071	0.0100
Method Group 020.XX PCT			44	22.272	0.4901	0.1706	41	22.279	0.4666	0.1243
Insoluble Phosphate, Grav Quimociac ...	963.03C	030.10	1	0.0550	0.0071	0.0100	1	0.0550	0.0071	0.0100
Insoluble Phosphate, Automated	978.01	030.40	1	0.0950	0.0212	0.0300	1	0.0950	0.0212	0.0300
Method Group 030.XX PCT			2	0.0750	0.0265	0.0200	2	0.0750	0.0265	0.0200
InDir Available Phosphate, Grav Quim ..	960.02	040.10	1	22.285	0.1626	0.2300	1	22.285	0.1626	0.2300
InDir Available Phosphate, Other		040.99	1	22.200	0.0566	0.0800	1	22.200	0.0566	0.0800
Method Group 040.XX PCT			2	22.243	0.1109	0.1550	2	22.243	0.1109	0.1550
Dir Available Phosphate, Grav Quim	960.03E	041.10	14	22.119	0.2807	0.1374	13	22.111	0.2812	0.1088
Dir Available Phosphate, Spectrometric	960.03D	041.20	4	22.310	0.3943	0.2118	4	22.310	0.3943	0.2118
Dir Available Phosphate, Alka. Quim ...	960.03C	041.30	1	22.160	0.0141	0.0200	1	22.160	0.0141	0.0200
Dir Available Phosphate, Automated	978.01	041.40	5	22.013	0.4538	0.1020	5	22.013	0.4538	0.1020
Dir Available Phosphate, ICP		041.50	5	22.130	0.4776	0.1120	5	22.130	0.4776	0.1120
Dir Available Phosphate, EDTA Extract .	993.01	041.60	8	21.935	0.2668	0.1579	8	21.935	0.2668	0.1579
Dir Available Phosphate, Other		041.99	1	22.505	0.1909	0.2700	1	22.505	0.1909	0.2700
Method Group 041.XX PCT			38	22.099	0.3548	0.1419	37	22.096	0.3566	0.1320

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Method	AOAC Ref.	Method Code	No. of Labs	Grand Avq.	Std. Dev.	Average Range of Dups	No. of Labs	Grand Avq.	Std. Dev.	Average Range of Dups
Water Soluble Phosphate, Spectrometric	970.01	048.20	2	20.473	0.2277	0.1850	2	20.473	0.2277	0.1850
Water Soluble Phosphate, Other		048.99	1	18.800	0.0283	0.0400	1	18.800	0.0283	0.0400
Method Group 048.XX PCT			3	19.915	0.8816	0.1367	3	19.915	0.8816	0.1367
Soluble Potash, STPB Oxalate	958.02	050.00	19	31.651	0.4324	0.1396	17	31.602	0.4127	0.0912
Soluble Potash, AA (Oxalate)		050.30	8	31.346	0.8855	0.2575	8	31.346	0.8855	0.2575
Soluble Potash, ICP (Oxalate)		050.50	4	31.901	1.0709	0.2459	4	31.901	1.0709	0.2459
Soluble Potash, ICP (Citrate)		050.51	6	31.453	1.0696	0.2650	5	31.707	0.9578	0.1300
Soluble Potash, Flame (Oxalate)	983.02(a)	050.60	6	31.837	0.4155	0.4507	6	31.837	0.4155	0.4507
Soluble Potash, Flame (Citrate)	983.02(b)	050.61	7	31.809	0.5051	0.2286	7	31.809	0.5051	0.2286
Soluble Potash, Other		050.99	14	31.714	0.4600	0.3411	12	31.674	0.3298	0.1655
Method Group 050.XX PCT			68	31.655	0.7941	0.2556	64	31.668	0.7764	0.1982
Free Water, Vacuum Oven	965.08B	060.00	7	0.8985	0.0980	0.0627	7	0.8985	0.0980	0.0627
Acid Soluble Calcium, AA	945.04	101.00	1	6.9150	0.2475	0.3500	1	6.9150	0.2475	0.3500
Acid Soluble Calcium, ICP		101.30	5	6.9998	0.2736	0.1201	5	6.9998	0.2736	0.1201
Acid Soluble Calcium, Titrimetric	945.03	101.70	1	6.2000	0.1414	0.2000	1	6.2000	0.1414	0.2000
Method Group 101.XX PCT			7	6.8734	0.3747	0.1643	7	6.8734	0.3747	0.1643
Acid Soluble Magnesium, AA	984.01	121.00	2	0.3970	0.0313	0.0040	2	0.3970	0.0313	0.0040
Acid Soluble Magnesium, ICP		121.30	6	0.4216	0.0196	0.0084	6	0.4216	0.0196	0.0084
Method Group 121.XX PCT			8	0.4154	0.0245	0.0073	8	0.4154	0.0245	0.0073
Sulfur, Gravimetric	980.02a	144.01	3	0.7650	0.0575	0.0233	3	0.7650	0.0575	0.0233
Sulfur, Gravimetric	980.02b	144.02	1	0.7150	0.0071	0.0100	1	0.7150	0.0071	0.0100
Sulfur, Other		144.99	4	0.7704	0.0370	0.0106	4	0.7704	0.0370	0.0106
Method Group 144.XX PCT			8	0.7615	0.0456	0.0153	8	0.7615	0.0456	0.0153
Arsenic, ICP		151.30	5	4.5229	4.7243	1.3159	5	4.5229	4.7243	1.3159
Arsenic, Other		151.99	1	4.5000	0.7071	1.0000	1	4.5000	0.7071	1.0000
Method Group 151.XX PPM			6	4.5190	4.2786	1.2633	6	4.5190	4.2786	1.2633
Acid Soluble Boron, Other		165.99	1	0.0167	0.0007	0.0009	1	0.0167	0.0007	0.0009
Cadmium, Atomic Absorption		181.00	3	19.558	1.1399	0.3487	3	19.558	1.1399	0.3487
Cadmium, ICP		181.30	10	17.020	1.1457	0.5754	10	17.020	1.1457	0.5754
Cadmium, Other		181.99	2	17.750	0.5000	0.5000	2	17.750	0.5000	0.5000
Method Group 181.XX PPM			15	17.625	1.4619	0.5200	15	17.625	1.4619	0.5200
Water Soluble Chlorine, Other		190.99	1	25.352	0.0178	0.0252	1	25.352	0.0178	0.0252
Chromium, Atomic Absorption		191.00	1	152.00	2.8284	4.0000	1	152.00	2.8284	4.0000
Chromium, ICP		191.30	8	111.99	9.7945	4.7381	7	113.72	8.6349	3.0864
Chromium, Other		191.99	2	127.75	11.529	8.5000	2	127.75	11.529	8.5000
Method Group 191.XX PPM			11	118.49	15.600	5.3550	11	118.49	15.600	5.3550
Acid Soluble Cobalt, ICP	965.11	202.30	4	1.0581	0.5496	0.1014	4	1.0581	0.5496	0.1014
Acid Soluble Cobalt, Other		202.99	2	0.7250	0.3202	0.0500	2	0.7250	0.3202	0.0500
Method Group 202.XX PPM			6	0.9470	0.4971	0.0842	6	0.9470	0.4971	0.0842

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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 Copper, Atomic Absorption	975.01	221.00	5	0.0009	0.0001	0.0001	4	0.0010	0.0001	0.0000
Acid Soluble Copper, ICP		221.30	10	0.0007	0.0001	0.0001	9	0.0007	0.0001	0.0000
Method Group 221.XX PCT			16	0.0007	0.0002	0.0001	14	0.0007	0.0002	0.0000
Acid Soluble Iron, Atomic Absorption ..	980.01	241.00	2	0.1360	0.0071	0.0020	2	0.1360	0.0071	0.0020
Acid Soluble Iron, ICP		241.30	5	0.1419	0.0120	0.0027	5	0.1419	0.0120	0.0027
Method Group 241.XX PCT			7	0.1402	0.0109	0.0025	7	0.1402	0.0109	0.0025
Lead, Atomic Absorption		251.00	1	3.0000	0.0000	0.0000	1	3.0000	0.0000	0.0000
Lead, ICP		251.30	4	2.2500	1.2024	0.1500	4	2.2500	1.2024	0.1500
Lead, Other		251.99	2	3.1500	1.6135	0.6000	2	3.1500	1.6135	0.6000
Method Group 251.XX PPM			7	2.6143	1.2538	0.2571	6	2.3000	1.0287	0.1333
Acid Soluble Manganese, AA	972.02a	261.00	2	0.0020	0.0001	0.0000	2	0.0020	0.0001	0.0000
Acid Soluble Manganese, ICP	972.02a	261.30	3	0.0019	0.0000	0.0000	3	0.0019	0.0000	0.0000
Method Group 261.XX PCT			5	0.0019	0.0001	0.0000	4	0.0019	0.0000	0.0000
Mercury, Other		281.99	1	0.0139	0.0021	0.0029	1	0.0139	0.0021	0.0029
Molybdenum, ICP		289.30	9	4.2454	2.2898	0.8160	8	3.8517	1.9901	0.4368
Nickel, Atomic Absorption		291.00	2	5.5859	0.4792	0.0380	2	5.5859	0.4792	0.0380
Nickel, ICP		291.30	9	6.0654	0.7250	0.4096	8	6.1298	0.6395	0.1983
Nickel, Other		291.99	2	6.9700	1.4432	1.0500	2	6.9700	1.4432	1.0500
Method Group 291.XX PPM			13	6.1308	0.8934	0.4510	11	6.0136	0.6089	0.1602
Selenium, ICP		301.30	2	1.3500	0.4123	0.1000	2	1.3500	0.4123	0.1000
Selenium, Other		301.99	2	2.6525	1.0604	0.5050	2	2.6525	1.0604	0.5050
Method Group 301.XX PPM			4	2.0013	1.0195	0.3025	3	1.5017	0.3965	0.0700
Sodium, Atomic Absorption	983.04	311.00	1	1.0500	0.0283	0.0400	1	1.0500	0.0283	0.0400
Sodium, Other		311.99	3	1.0754	0.0567	0.0344	3	1.0754	0.0567	0.0344
Method Group 311.XX PCT			4	1.0690	0.0504	0.0358	4	1.0690	0.0504	0.0358
Acid Soluble Zinc, Atomic Absorption ..	975.02	321.00	6	0.0115	0.0017	0.0004	5	0.0114	0.0019	0.0000
Acid Soluble Zin, ICP		321.30	13	0.0116	0.0012	0.0004	12	0.0115	0.0012	0.0003
Acid Soluble Zinc, Other		321.99	2	0.0124	0.0005	0.0005	2	0.0124	0.0005	0.0005
Method Group 321.XX PCT			21	0.0116	0.0013	0.0004	19	0.0116	0.0014	0.0003

Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
--	Method 001.10	--	--	Method 001.XX	--	--	Method 005.XX	--	--	Method 010.17	--	--	Method 010.60	--
389	27.050 s	73.49	419	7.7800	-1.24	Avg	17.739		137	33.020	.71	027	31.955	-1.92
029	8.5200	1.85				309	16.950	-.26				131	31.940	-1.98
309	8.4000 R	1.44	--	Method 002.10	--	354	16.716	-.33	--	Method 010.60	--	041	31.865	-2.43
Avg	8.0420		372	7.8400	.00	419	16.300	-.46	070	32.855	2.07	330	31.850 s	-3.70
288	7.9950	-.18				395	16.100	-.53	372	32.730 R	1.67	262	31.550 R	-3.84
330	7.9500	-.40	--	Method 002.99	--	247	16.040	-.55	037	32.725	1.48	073	31.415 s	-5.19
324	7.9000	-.55	289	8.1800	.71				029	32.720 X	1.43	055	30.780 s	-7.10
372	7.8450	-.76	419	8.1150	.61	--	Method 009.10	--	234	32.695	1.32	157	30.735 s	-7.24
			288	7.9900	.41	030	30.400	.87	233	32.655	1.15	096	30.415 s	-8.63
--	Method 001.99	--	247	7.8950 R	.39	Avg	23.025		324	32.620	1.04			
376	33.360 s	72.67	395	7.8050	.12	309	15.650	-.87	390	32.575	.90	--	Method 010.99	--
234	8.7850	1.60	Avg	7.7270					325	32.580	.82	354	34.073 S	9.73
354	8.5283 R	.99	354	6.5450	-1.86	--	Method 010.10	--	028	32.565	.76	177	32.162	1.01
247	8.4900	.79				114	32.785	.71	251	32.555	.71	105	31.955	.57
397	8.4115	.52	--	Method 002.XX	--				275	32.470	.38	Avg	31.939	
Avg	8.2324		289	8.1800	.75	--	Method 010.11	--	360	32.405	.29	419	31.700	-1.08
096	8.2050	-.11	419	8.1150	.64	090	32.560	1.27	231	32.445	.25			
395	8.0950	-.40	288	7.9900	.42	029	32.425	1.00	025	32.440	.24	--	Method 010.XX	--
289	7.8600	-1.08	247	7.8950 R	.41	105	32.170	.59	361	32.430	.18	354	34.073 s	4.88
419	7.7800	-1.31	372	7.8400	.16	414	32.015	.19	247	32.400	.18	137	33.020	1.96
			395	7.8050	.11	211	31.980	.11	023	32.420	.13	070	32.855	1.54
--	Method 001.XX	--	Avg	7.7458		Avg	31.934		296	32.400	.05	114	32.785	1.36
376	33.360 s	79.64	354	6.5450	-2.08	028	31.820	-.23	389	32.400	.03	372	32.730	1.28
389	27.050 s	59.69				288	31.510	-.86	Avg	32.393		037	32.725	1.18
234	8.7850	1.94	--	Method 005.00	--	073	31.525 R	-1.00	095	32.355	-.20	029	32.720 X	1.16
354	8.5283 R	1.25	288	24.330	1.61	322	30.991	-1.92	136	32.345	-.21	234	32.695	1.09
029	8.5200	1.10	Avg	18.355		309	30.150 S	-3.63	035	32.350	-.23	233	32.655	.98
247	8.4900	1.04	309	16.950	-.38				009	32.330	-.28	324	32.620	.91
309	8.4000	.79	395	16.100	-.61	--	Method 010.12	--	106	32.340	-.29	390	32.575	.81
397	8.4115	.76	247	16.040	-.62	351	32.054	.87	381	32.375	-.29	325	32.580	.78
096	8.2050	.13				397	31.938	.40	049	32.355	-.33	028	32.565	.74
Avg	8.1720		--	Method 005.99	--	Avg	31.840		232	32.290	-.46	090	32.560	.73
395	8.0950	-.25	354	16.716	.87	416	31.530	-1.26	377	32.250	-.71	251	32.555	.71
288	7.9950	-.56	Avg	16.508		185	30.610 S	-5.03	142	32.205	-.82	275	32.470	.50
330	7.9500	-.72	419	16.300	-.86	415	16.635 s	-61.59	042	32.190	-.89	231	32.445	.42
324	7.9000	-.86							034	32.140	-1.11	025	32.440	.41
289	7.8600	-.99	--	Method 005.XX	--	--	Method 010.16	--	024	32.115	-1.22	361	32.430	.38
372	7.8450	-1.03	288	24.330	2.13	395	32.265	.71	007	32.150 R	-1.86	029	32.425	.37

* 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
--	Method 010.XX	--	--	Method 010.XX	--	--	Method 020.20	--	--	Method 020.XX	--	--	Method 020.XX	--
360	32.405	.35	073	31.415 R	-2.97	288	21.890	-.82	114	23.775 s	3.54	262	21.800	-1.05
023	32.420	.35	322	30.991	-3.49	262	21.800	-1.05	389	23.650	2.94	360	22.190 R	-1.13
247	32.400	.31	055	30.780 s	-4.09	390	21.755	-1.15	361	23.290	2.17	390	21.755	-1.14
296	32.400	.30	157	30.735 A	-4.18	169	21.680	-1.34	030	23.025	1.61	169	21.680	-1.31
389	32.400	.30	185	30.610 s	-4.53	251	21.430	-1.95	330	22.900 R	1.58	043	21.455	-1.77
381	32.375	.29	096	30.415 s	-5.03	418	21.425 R	-2.02	372	22.975	1.49	251	21.430	-1.87
049	32.355	.25	309	30.150 s	-5.75	234	19.360 s	-10.25	211	22.670	.84	418	21.425 R	-1.93
095	32.355	.19	415	16.635 s	-42.04				193	22.650	.80	042	21.300	-2.14
035	32.350	.18				--	Method 020.30	--	416	22.616	.73	234	19.360 s	-9.41
106	32.340	.17	--	Method 020.10	--	416	22.616	.71	395	22.610	.71			
136	32.345	.15	114	23.775 s	4.73				232	22.595	.68	--	Method 030.10	--
009	32.330	.11	211	22.670	1.36	--	Method 020.40	--	362	22.555	.67	090	0.0550	.71
232	32.290	.05	105	22.385	.59	193	22.650	1.90	391	22.500	.52			
Avg	32.290		090	22.340	.57	035	22.300	.80	035	22.300	.32	--	Method 030.40	--
395	32.265	-.08	136	22.290	.34	142	22.420	.68	142	22.420	.31	247	0.0950	.71
142	32.205	-.23	313	22.285	.31	Avg	22.296		090	22.340	.29			
377	32.250	-.24	Avg	22.169		247	22.295	-.13	105	22.385	.23	--	Method 030.XX	--
042	32.190	-.27	414	22.125	-.19	096	22.210	-.51	415	22.372	.20	247	0.0950	.94
177	32.162	-.35	095	21.800	-1.01	105	22.205	-.54	324	22.350	.19	Avg	0.0750	
034	32.140	-.41	043	21.455	-1.93	409	22.235	-.60	136	22.290	.07	090	0.0550	-.78
024	32.115	-.48				289	22.055	-1.36	247	22.295	.06			
105	32.170	-.56	--	Method 020.20	--	042	21.300 s	-5.41	313	22.285	.02	--	Method 040.10	--
351	32.054	-.63	381	24.510 s	5.34				Avg	22.279		090	22.285	.71
414	32.015	-.75	030	23.025	1.86	--	Method 020.50	--	419	22.200	-.17			
211	31.980	-.84	372	22.975	1.74	354	25.890 S	4.43	096	22.210	-.17	--	Method 040.99	--
027	31.955	-.91	395	22.610	.88	389	23.650	1.17	105	22.205	-.19	247	22.200	.71
131	31.940	-.94	232	22.595	.84	361	23.290	.65	157	22.201	-.19			
397	31.938	-.95	362	22.555	.82	330	22.900	.59	363	22.230	-.20	--	Method 040.XX	--
105	31.955	-.96	391	22.500	.66	Avg	22.846		409	22.235	-.22	090	22.285	1.11
007	32.150 R	-1.01	415	22.372	.32	157	22.201	-.94	106	22.245	-.26	Avg	22.243	
041	31.865	-1.23	324	22.350	.29				320	22.155	-.27	247	22.200	-.53
028	31.820	-1.26	106	22.245	.27				231	22.150	-.30			
419	31.700	-1.58	Avg	22.237		--	Method 020.99	--	414	22.125	-.35	--	Method 041.10	--
416	31.530	-2.04	419	22.200	-.09	320	22.155	-.71	309	22.100	-.44	296	22.615	1.80
288	31.510	-2.09	363	22.230	-.19				376	22.045	-.51	185	22.365	1.10
262	31.550 R	-2.10	231	22.150	-.24	--	Method 020.XX	--	289	22.055	-.51	105	22.400	1.03
330	31.850 R	-2.11	309	22.100	-.40	354	25.890 s	7.75	288	21.890	-.84	041	22.215 R	.98
073	31.525 R	-2.18	376	22.045	-.46	381	24.510 s	4.78	095	21.800	-1.03	029	22.305	.69

* 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
--	Method 041.10	--	--	Method 041.60	--	--	Method 041.XX	--	--	Method 050.00	--	--	Method 050.51	--
009	22.185	.27	296	22.325	1.49	102	21.968	-.36	350	31.770	.41	389	32.600	.93
028	22.160	.25	028	22.125	.72	377	22.050	-.44	211	31.760	.39	Avg	31.707	
177	22.136	.10	377	22.050	.71	106	21.955	-.45	137	31.740	.35	377	31.450	-.31
Avg	22.111		177	22.026	.37	025	21.925	-.52	055	31.720	.29	007	31.110	-.62
073	22.020	-.33	Avg	21.935		037	21.930	-.77	028	31.685	.23	361	30.490	-1.27
049	22.095	-.41	288	21.790	-.56	325	21.800	-.83	391	31.650	.17	251	30.180 R	-1.67
102	21.968	-.51	037	21.930	-.82	288	21.790	-.86	Avg	31.602		070	28.190 S	-3.68
055	21.765	-1.29	351	21.713	-.84	055	21.765	-.97	049	31.600	-.07			
131	21.765	-1.31	095	21.525	-1.56	131	21.765	-.99	414	31.485	-.34	--	Method 050.60	--
137	21.670	-1.57				351	21.713	-1.08	090	31.355	-.60	415	33.729 s	4.59
			--	Method 041.99	--	027	21.685	-1.15	022	31.270	-.87	390	32.450	1.57
--	Method 041.20	--	034	22.505	-.71	137	21.670	-1.19	073	31.185	-1.01	289	31.875	.36
362	22.750	1.19				360	21.555	-1.55	296	31.190	-1.03	Avg	31.837	
397	22.550	.75	--	Method 041.XX	--	095	21.525	-1.61	418	30.530	-2.60	288	31.700	-.33
Avg	22.310		007	22.830	2.07	131	21.500	-1.70	372	29.635 s	-4.77	055	31.635	-.54
055	21.985	-.82	362	22.750	1.89	070	19.810 s	-6.41	345	26.405 s	-12.59	105	31.660	-1.03
106	21.955	-.92	105	22.695	1.69							169	31.702	-1.20
			296	22.615	1.46	--	Method 048.20	--	--	Method 050.30	--	309	26.000 s	-14.05
--	Method 041.30	--	397	22.550	1.36	362	20.640	.96	397	32.726	1.57			
260	22.160	.71	034	22.505	1.21	Avg	20.473		193	32.000	.75	--	Method 050.61	--
			185	22.365	.90	247	20.305	-.76	185	31.750	.54	030	32.550	1.55
--	Method 041.40	--	105	22.400	.85				136	31.505	.19	105	32.025	.69
105	22.695	1.51	361	22.395	.84	--	Method 048.99	--	234	31.405	.07	037	32.035	.45
029	22.260	.54	041	22.215 R	.79	275	18.800 X	.71	Avg	31.346		025	31.935	.25
Avg	22.013		296	22.325	.68				142	31.075	-.32	Avg	31.809	
025	21.925	-.25	029	22.305	.59	--	Method 048.XX	--	381	30.475	-1.07	028	31.695	-.29
027	21.685	-.72	029	22.260	.46	362	20.640	.84	351	29.835	-1.71	029	31.435	-.74
131	21.500	-1.16	009	22.185	.25	247	20.305	.45	262	25.850 s	-6.21	035	30.985	-1.65
			028	22.160	.23	Avg	19.915					041	28.365 s	-9.29
--	Method 041.50	--	260	22.160	.18	275	18.800 X	-1.26	--	Method 050.50	--			
007	22.830	1.48	177	22.136	.12				354	33.580	1.57	--	Method 050.99	--
361	22.395	.56	028	22.125	.11	--	Method 050.00	--	Avg	31.901		330	33.450 s	5.40
Avg	22.130		Avg	22.096		416	32.301 R	1.86	106	31.625	-.26	042	32.450 R	3.07
023	22.070	-.18	023	22.070	-.18	131	32.240	1.55	157	31.317	-.55	275	32.050	1.46
325	21.800	-.69	073	22.020	-.22	009	32.165	1.39	324	31.080	-.81	360	31.980	.95
360	21.555	-1.22	177	22.026	-.23	231	32.040	1.06				376	31.965	.89
070	19.810 S	-4.86	055	21.985	-.31	043	31.825 R	.78	--	Method 050.51	--	177	31.944	.86
			049	22.095	-.32	029	31.850	.60	023	32.885	1.24	034	31.675	.74

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
--	Method 050.99	--	--	Method 050.XX	--	--	Method 050.XX	--	--	Method 101.XX	--	--	Method 144.02	--
027	31.885	.64	027	31.885	.28	381	30.475	-1.61	105	6.9150	.48	361	0.7150	.71
260	31.795	.45	029	31.850	.23	251	30.180 R	-2.01	102	6.9164	.35			
Avg	31.674		260	31.795	.20	351	29.835	-2.36	009	6.8976	.11	--	Method 144.99	--
325	31.595	-.24	350	31.770	.14	372	29.635	-2.62	Avg	6.8734		035	0.8250	1.49
247	31.430	-.74	028	31.695	.13	395	29.630	-2.63	247	6.6400	-.68	Avg	0.7704	
362	31.350 X	-1.03	211	31.760	.12	070	28.190 s	-4.49	193	6.2000	-1.82	247	0.7700	-.01
419	31.300	-1.13	137	31.740	.11	041	28.365 s	-5.91				102	0.7533	-.50
232	31.120	-1.68	055	31.720	.07	345	26.405 s	-6.78	--	Method 121.00	--	009	0.7334	-1.01
363	31.455 R	-2.35	028	31.685	.06	309	26.000 s	-7.30	105	0.4240	.87			
395	29.630 s	-6.20	288	31.700	.05	262	25.850 s	-7.49	Avg	0.3970		--	Method 144.XX	--
			Avg	31.668					193	0.3700	-.86	157	4.9890 s	92.66
--	Method 050.XX	--	106	31.625	-.06	--	Method 060.00	--				363	0.8350	1.64
415	33.729	2.67	391	31.650	-.07	105	1.0050	1.14	--	Method 121.30	--	035	0.8250	1.40
354	33.580	2.47	049	31.600	-.10	247	0.9450	.74	131	0.4455	1.23	247	0.7700	.19
330	33.450	2.30	325	31.595	-.10	363	0.9300	.60	102	0.4400	1.01	Avg	0.7615	
023	32.885	1.58	055	31.635	-.13	362	0.9500	.56	247	0.4250	.31	102	0.7533	-.24
397	32.726	1.37	136	31.505	-.22	Avg	0.8985		Avg	0.4216		288	0.7450	-.38
042	32.450 R	1.31	414	31.485	-.26	361	0.8900	-.09	361	0.4200	-.08	009	0.7334	-.63
389	32.600	1.20	029	31.435	-.30	007	0.8500	-.49	009	0.4048	-.90	361	0.7150	-1.02
030	32.550	1.18	247	31.430	-.31	416	0.7192	-1.93	035	0.3940	-1.43	193	0.7150	-1.07
390	32.450	1.05	234	31.405	-.34									
416	32.301	.91	377	31.450	-.34	--	Method 101.00	--	--	Method 121.XX	--	--	Method 151.30	--
131	32.240	.74	090	31.355	-.41	105	6.9150	.71	131	0.4455	1.23	009	12.605	1.74
009	32.165	.65	362	31.350 X	-.43				102	0.4400	1.05	419	5.6750	.40
275	32.050	.63	157	31.317	-.46	--	Method 101.30	--	247	0.4250	.44	Avg	4.5229	
169	31.702 R	.62	419	31.300	-.47	361	7.3550	1.30	105	0.4240	.39	231	1.8000	-.58
105	32.025	.58	105	31.660	-.50	035	7.1900	.71	361	0.4200	.19	102	1.7343	-.59
231	32.040	.48	022	31.270	-.54	Avg	6.9998		Avg	0.4154		247	0.8000	-.79
037	32.035	.47	073	31.185	-.62	009	6.8976	-.39	009	0.4048	-.49			
193	32.000	.45	296	31.190	-.63	102	6.9164	-.54	035	0.3940	-.90	--	Method 151.99	--
360	31.980	.41	232	31.120	-.71	247	6.6400	-1.36	193	0.3700	-1.86	409	4.5000	.71
376	31.965	.38	007	31.110	-.72									
177	31.944	.37	142	31.075	-.77	--	Method 101.70	--	--	Method 144.01	--	--	Method 151.XX	--
043	31.825	.36	324	31.080	-.85	193	6.2000	.71	157	4.9890 S	73.42	009	12.605	1.93
025	31.935	.34	035	30.985	-.89				363	0.8350	1.24	419	5.6750	.44
185	31.750	.34	363	31.455 R	-1.00	--	Method 101.XX	--	Avg	0.7650		Avg	4.5190	
289	31.875	.33	418	30.530	-1.47	361	7.3550	1.29	288	0.7450	-.36	409	4.5000	-.12
034	31.675	.32	361	30.490	-1.52	035	7.1900	.85	193	0.7150	-.91	231	1.8000	-.64

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
--	Method 151.XX	--	--	Method 181.XX	--	--	Method 191.XX	--	--	Method 221.00	--	--	Method 221.XX	--
102	1.7343	-.65	231	17.600	-.14	105	126.00	.52	193	0.0011	1.40	232	0.0006	-.41
247	0.8000	-.87	009	17.365	-.18	009	122.80	.28	105	0.0010	.29	105	0.0007	-.47
			320	17.500	-.35	320	119.00	.13	Avg	0.0010		330	0.0006	-.59
--	Method 165.99	--	247	17.000	-.43	Avg	118.49		029	0.0009 X	-.82	106	0.0006	-.59
009	0.0167	.71	157	16.850	-.53	102	115.27	-.21	028	0.0009	-.88	324	0.0006	-.75
			376	16.850	-.54	376	114.00	-.31	234	0.0009 R	-2.16	035	0.0007 R	-.76
--	Method 181.00	--	232	17.350	-.55	247	111.50	-.46				247	0.0002	-2.51
363	20.500	.94	035	17.200	-.62	157	103.50	-.96	--	Method 221.30	--			
193	20.000	.39	324	15.600	-1.39	232	103.00	-1.01	354	0.0045 s	38.57	--	Method 241.00	--
Avg	19.558		105	15.200	-1.73	035	99.850	-1.30	102	0.0008	1.25	105	0.1420	.89
397	18.174	-1.21	419	14.600 s	-2.96	419	89.000 s	-2.65	231	0.0008	1.12	Avg	0.1360	
									157	0.0008	1.12	193	0.1300	-.84
									105	0.0007	1.01			
--	Method 181.30	--	--	Method 190.99	--	--	Method 202.00	--				--	Method 241.30	--
102	19.189	1.90	009	25.352	.71	193	8.5000 S	.00	Avg	0.0007		131	0.1610	1.60
035	17.200	.72				--	Method 202.30	--	009	0.0007	-.18	102	0.1429	.14
232	17.350	.72	--	Method 191.00	--	009	1.9350	1.60	232	0.0006	-.49	009	0.1421	.09
231	17.600	.54	193	152.00	.71	Avg	1.0581		106	0.0006	-.89	Avg	0.1419	
009	17.365	.30				102	0.8673	-.35	330	0.0006	-.89	035	0.1375	-.42
Avg	17.020		--	Method 191.30	--	324	0.7500	-.57	324	0.0006	-1.25	247	0.1260	-1.32
247	17.000	-.02	105	126.00	1.46	419	0.6800	-.69	035	0.0007 R	-1.55			
157	16.850	-.15	009	122.80	1.05				247	0.0002 s	-5.20			
376	16.850	-.20	376	114.00	.22	--	Method 202.99	--				--	Method 241.XX	--
324	15.600	-1.24	102	115.27	.18	409	1.0000	.86	--	Method 221.99	--	131	0.1610	1.91
105	15.200	-1.70	Avg	113.72		Avg	0.7250		409	0.0020 S	.00	102	0.1429	.27
419	14.600 s	-3.43	247	111.50	-.31	320	0.4500	-.87				105	0.1420	.25
			157	103.50	-1.19				--	Method 221.XX	--	009	0.1421	.19
--	Method 181.99	--	232	103.00	-1.29				354	0.0045 s	16.94	Avg	0.1402	
409	18.000	.50	035	99.850 R	-1.86	--	Method 202.XX	--	409	0.0020 s	6.07	035	0.1375	-.34
Avg	17.750		419	89.000 s	-4.41	193	8.5000 s	15.23	193	0.0011	1.64	193	0.1300	-.93
320	17.500	-1.12				009	1.9350	2.00	105	0.0010	1.19	247	0.1260	-1.30
			--	Method 191.99	--	409	1.0000	.11	234	0.0009 R	.85			
--	Method 181.XX	--	409	136.50	.95	Avg	0.9470		029	0.0009 X	.74	--	Method 251.00	--
363	20.500	2.00	Avg	127.75		102	0.8673	-.16	028	0.0009	.72	193	3.0000	.00
193	20.000	1.62	320	119.00	-.78	324	0.7500	-.41	102	0.0008	.38			
102	19.189	1.07				419	0.6800	-.55	231	0.0008	.30	--	Method 251.30	--
397	18.174	.38	--	Method 191.XX	--	320	0.4500	-1.00	157	0.0008	.30	231	4.1000	1.54
409	18.000	.26	193	152.00	2.15				Avg	0.0007		Avg	2.2500	
Avg	17.625		409	136.50	1.23				009	0.0007	-.23	247	2.0000	-.21

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Laboratory Averages & Accuracy Indexes

Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index	Lab	Average*	Index
--	Method 251.30	--	--	Method 281.99	--	--	Method 291.XX	--	--	Method 311.99	--	--	Method 321.99	--
324	1.8000	-.41	296	0.0139	.71	193	13.5000 s	12.32	009	1.1301	.98	409	0.0128	.78
157	1.1000	-.96				409	8.0000 R	3.65	102	1.0830	.50	Avg	0.0124	
			--	Method 289.30	--	247	7.0000	1.62	Avg	1.0754		320	0.0121	-.94
--	Method 251.99	--	009	8.0100	2.10	102	6.6183	1.00	035	1.0130	-1.14			
409	4.5000	.89	419	7.3950 R	2.03	231	6.6000	.96				--	Method 321.XX	--
Avg	3.1500		231	5.9000	1.03	157	6.3700	.59	--	Method 311.XX	--	354	0.0185 s	5.06
376	1.8000	-.84	Avg	3.8517		009	6.2000	.32	009	1.1301	1.22	023	0.0140	1.76
			105	3.5500	-.50	Avg	6.0136		102	1.0830	.60	105	0.0130	1.03
--	Method 251.XX	--	102	2.7485	-.55	320	6.0000	-.02	Avg	1.0690		409	0.0128	.90
409	4.5000 R	2.19	232	2.7300	-.57	035	5.9400	-.15	193	1.0500	-.55	105	0.0120 R	.79
231	4.1000	1.75	247	2.7500	-.57	232	5.6500	-.83	035	1.0130	-1.16	193	0.0120 R	.79
193	3.0000	.68	157	2.6250	-.62	376	5.3500	-1.12				330	0.0125	.76
Avg	2.3000		324	2.5000	-.68	324	5.2500	-1.28	--	Method 321.00	--	009	0.0120	.46
247	2.0000	-.29				397	5.1718	-1.38	105	0.0130	.85	231	0.0122	.45
376	1.8000	-.50	--	Method 291.00	--	105	5.5500 R	-1.89	193	0.0120 R	.62	095	0.0122	.45
324	1.8000	-.52	193	13.5000 S	16.55				095	0.0122	.42	320	0.0121	.42
157	1.1000	-1.17	320	6.0000	.86	--	Method 301.30	--	029	0.0121 X	.36	029	0.0121 X	.37
			Avg	5.5859		419	58.0000 s	181.66	028	0.0119	.23	102	0.0119	.22
--	Method 261.00	--	397	5.1718	-.87	231	1.7000	.88	Avg	0.0114		028	0.0119	.19
193	0.0021	1.12				Avg	1.3500		234	0.0080	-1.85	247	0.0118	.12
Avg	0.0020		--	Method 291.30	--	247	1.0000	-.85				035	0.0116	.07
105	0.0020	-.50	247	7.0000	1.36				--	Method 321.30	--	Avg	0.0116	
			102	6.6183	.77	--	Method 301.99	--	354	0.0185 s	5.73	232	0.0113	-.30
--	Method 261.30	--	231	6.6000	.74	409	3.5000	.93	023	0.0140	2.03	324	0.0109	-.51
009	0.0019	1.10	157	6.3700	.38	Avg	2.6525		105	0.0120 R	.91	157	0.0109	-.55
247	0.0019	.11	009	6.2000	.14	131	1.8050	-.80	330	0.0125	.90	251	0.0100	-1.16
Avg	0.0019		Avg	6.1298					231	0.0122	.57	106	0.0092	-1.75
102	0.0019	-1.13	232	5.6500	-.93	--	Method 301.XX	--	009	0.0120	.56	234	0.0080	-2.62
035	0.0018 S	-11.58	376	5.3500	-1.24	419	58.0000 s	188.61	102	0.0119	.30	419	0.0062 s	-4.94
			324	5.2500	-1.40	409	3.5000 R	5.20	247	0.0118	.20			
--	Method 261.XX	--	105	5.5500 R	-1.88	131	1.8050	.77	035	0.0116	.11			
193	0.0021 R	2.74				231	1.7000	.56	Avg	0.0115				
105	0.0020	1.54	--	Method 291.99	--	Avg	1.5017		232	0.0113	-.30			
Avg	0.0019		409	8.0000	.99	247	1.0000	-1.27	324	0.0109	-.51			
009	0.0019	-.31	Avg	6.9700					157	0.0109	-.56			
247	0.0019	-.47	035	5.9400	-.71	--	Method 311.00	--	251	0.0100	-1.24			
102	0.0019	-.90				193	1.0500	.71	106	0.0092	-1.89			
035	0.0018 s	-4.62							419	0.0062 s	-5.48			

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

Method Evaluation - Z Values Based on 1 Reports

Method Code	Number Of Labs	Avg Bias of Labs	Std Dev of Biases	Std Dev Within Labs	Method Code	Number Of Labs	Avg Bias of Labs	Std Dev of Biases	Std Dev Within Labs
001.10	7	10.6957	27.71	0.18	060.XX	7	0.0000	0.95	0.40
001.99	9	8.1693	24.21	0.19	101.30	5	0.0000	1.02	0.27
001.XX	16	8.7788	24.06	0.19	101.XX	7	0.0000	1.00	0.26
002.99	6	0.0439	0.95	0.13	121.00	2	0.0000	1.22	0.09
002.XX	7	0.0368	0.96	0.13	121.30	6	0.0000	1.01	0.25
005.00	4	0.0000	1.08	0.01	121.XX	8	0.0000	1.02	0.18
005.99	2	0.0000	1.22	0.08	144.01	4	18.3548	36.72	0.20
005.XX	6	0.0000	1.05	0.01	144.99	4	0.0000	1.06	0.17
009.10	2	0.0000	1.22	0.00	144.XX	9	10.2952	30.90	0.20
009.XX	2	0.0000	1.22	0.00	151.30	5	0.0000	1.04	0.21
010.11	10	-0.4460	1.46	0.21	151.XX	6	0.0000	1.02	0.21
010.12	5	-13.3148	27.08	0.32	181.00	3	0.0000	1.07	0.25
010.60	43	-0.7630	2.31	0.74	181.30	11	-0.1920	1.10	0.89
010.99	4	2.4009	4.88	0.82	181.99	2	0.0000	0.71	0.71
010.XX	61	-1.0885	5.61	0.41	181.XX	16	-0.1293	1.08	0.59
020.10	9	0.4826	1.74	0.64	191.30	9	-0.4967	1.36	1.18
020.20	22	-0.1513	2.13	1.66	191.99	2	0.0000	1.07	0.42
020.40	9	-0.5893	1.97	0.52	191.XX	12	-0.1575	1.10	0.58
020.50	6	0.7378	2.00	0.40	202.30	4	0.0000	1.07	0.11
020.XX	47	0.1861	1.95	1.09	202.99	2	0.0000	1.21	0.11
030.XX	2	0.0000	1.07	0.42	202.XX	7	2.1707	5.82	0.39
040.XX	2	0.0000	0.54	0.78	221.00	5	-0.2753	1.12	0.75
041.10	14	0.0263	0.95	0.36	221.30	12	2.7211	11.31	1.55
041.20	4	0.0000	1.02	0.31	221.XX	17	1.2983	4.31	0.82
041.40	5	0.0000	1.05	0.15	241.00	2	0.0000	1.19	0.20
041.50	6	-0.8096	2.19	0.13	241.30	5	0.0000	1.05	0.13
041.60	8	0.0000	0.95	0.39	241.XX	7	0.0000	1.03	0.14
041.XX	32	-0.2213	1.48	0.31	251.30	4	0.0000	1.07	0.09
048.20	2	0.0000	1.04	0.46	251.99	2	0.0000	1.18	0.22
048.XX	3	0.0000	1.11	0.10	251.XX	7	0.3055	1.25	0.20
050.00	21	-0.7202	3.08	0.25	261.00	2	0.0000	0.71	0.71
050.30	9	-0.6897	2.28	0.19	261.30	4	-2.0331	4.14	4.14
050.50	4	0.0000	1.07	0.15	261.XX	6	-0.1577	2.10	1.31
050.51	7	-0.7523	1.66	0.21	289.30	9	0.1978	1.12	0.37
050.60	8	-1.1868	5.47	0.62	289.XX	9	0.1978	1.12	0.37
050.61	8	-0.8522	2.58	2.25	291.00	3	5.5055	9.57	0.60
050.99	16	0.0547	2.35	0.82	291.30	9	-0.1007	0.99	0.59
050.XX	69	-0.4592	1.90	0.56	291.99	2	0.0000	1.01	0.49
060.00	7	0.0000	0.95	0.40	291.XX	14	1.0568	3.47	0.70

Method Evaluation - Z Values Based on 1 Reports

<u>Method Code</u>	<u>Number Of Labs</u>	<u>Avg Bias of Labs</u>	<u>Std Dev of Biases</u>	<u>Std Dev Within Labs</u>	<u>Method Code</u>	<u>Number Of Labs</u>	<u>Avg Bias of Labs</u>	<u>Std Dev of Biases</u>	<u>Std Dev Within Labs</u>
301.30	3	45.7988	79.33	68.61					
301.99	2	0.0000	1.13	0.33					
301.XX	5	29.5061	63.20	55.27					
311.99	3	0.0000	1.04	0.34					
311.XX	4	0.0000	0.99	0.38					
321.00	6	0.0513	0.96	0.22					
321.30	15	0.1200	2.11	0.92					
321.99	2	0.0000	0.98	0.52					
321.XX	21	0.2373	1.45	0.27					