

AFPC
2014-01 **Grade** 18-46-0

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, Other		001.99	10	17.41	0.06
Method Group 001.XX PCT			10	17.41	0.08
PERCENT UREA					
Percent UREA, Other		007.99	1	0.51	0.00
Method Group 007.XX PCT			1	0.51	0.00
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	1	17.52	0.00
Total Nitrogen, Salicylic	955.04d	010.12	2	17.87	0.11
Total Nitrogen, Combustion	993.13	010.60	21	17.76	0.21
Total Nitrogen, Other		010.99	9	17.61	0.13
Method Group 010.XX PCT			33	17.72	0.33
TOTAL PHOSPHATE					
Total Phosphate, Gravimetric Quimociac		020.10	4	47.60	1.61
Total Phosphate, Spectrometric	978.02	020.20	17	46.37	0.15
Total Phosphate, Alka. Quimociac	955.04d	020.30	1	46.19	0.00
Total Phosphate, ICP	970.03	020.40	4	46.46	0.21
Total Phosphate, Other	993.13	020.99	1	46.66	0.00
Method Group 020.XX PCT			27	46.45	0.23
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	10	0.17	0.04
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.23	0.00
Insoluble Phosphate, Automated	978.01	030.40	2	0.16	0.04
Insoluble Phosphate, Other		030.99	2	0.20	0.01
Method Group 030.XX PCT			15	0.18	0.08
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	11	46.18	0.22
Indirect Available Phosphate, Other		040.99	2	46.36	0.10
Method Group 040.XX PCT			13	46.22	0.21
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	3	46.15	0.04
Direct Available Phosphate, Automated	978.01	041.40	2	44.78	1.98
Direct Available Phosphate, ICP		041.50	4	45.73	0.57
Direct Available Phosphate, EDTA Extract	993.01	041.60	4	46.50	0.28
Direct Available Phosphate, Other		041.99	1	46.31	0.00
Method Group 041.XX PCT			14	46.27	0.49
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Spectrometric	970.01	048.20	13	41.40	0.40
Water Soluble Phosphate, Alka. Quimociac	964.04	048.30	1	40.24	0.00
Water Soluble Phosphate, Other		048.99	5	42.14	0.57
Method Group 048.XX PCT			19	41.41	0.79
SOLUBLE POTASH AS K₂O					
Soluble Potash, Atomic Absorption(Oxalate)		050.30	1		0.00
Soluble Potash, ICP(Oxalate)		050.50	2	0.10	0.00
Soluble Potash, ICP(Citrate)		050.51	2	0.16	0.03
Soluble Potash, Other		050.99	7	0.11	0.00
Method Group 050.XX PCT			12	0.11	0.00
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	16	2.18	0.30
Free Water, Vacuum Desiccate	965.08A	060.10	2	4.08	0.18

Method Group 060.XX PCT

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2.22

0.35

ACID SOLUBLE CALCIUM AS CaO

Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.21	0.00
Acid Soluble Calcium, ICP		101.30	15	0.32	0.03
Acid Soluble Calcium, Other		101.99	1	0.21	0.00
Method Group 101.XX PCT			17	0.31	0.10

ACID SOLUBLE MAGNESIUM AS MgO

Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	1.46	0.00
Acid Soluble Magnesium, ICP		121.30	15	1.43	0.05
Acid Soluble Magnesium, Other		121.99	1	1.31	0.00
Method Group 121.XX PCT			17	1.43	0.07

SULFATE SULFUR (S)

Sulfur, Gravimetric	980.02(a)	144.01	5	1.14	0.07
Sulfur, Spectrometric		144.70	2	1.09	0.01
Sulfur, Other		144.99	10	1.13	0.01
Method Group 144.XX PCT			17	1.12	0.04

TOTAL SULFUR (S)

Sulfur, Other		145.99	1	1.02	0.00
Method Group 145.XX PCT			1	1.02	0.00

TOTAL ARSENIC

Total Arsenic, Atomic Absorption	980.02(a)	151.01	1	1.20	0.0
Total Arsenic, ICP	980.02(b)	151.02	6	15	1.2
Method Group 151.XX PPM			7	14	3.0

ACID SOLUBLE BORON

Acid Soluble Boron, Other		165.99	1	46	0.0
Method Group 165.XX PPM			1	46	0.0

TOTAL CADMIUM

Total Cadmium, Atomic Absorption		181.00	1		0.0
Total Cadmium, ICP		181.30	4	4	2.8
Total Cadmium, Other		181.99	1	4	0.0
Method Group 181.XX PPM			6	4	0.5

ALUMINUM AS Al₂O₃

ICP, %			14	1.49	0.04
Other		190.99	1	1.47	0.00
Method Group 190.XX PCT			15	1.49	0.04

TOTAL CHROMIUM

Total Chromium, Atomic Absorption		191.00	1	160	0.0
Total Chromium, ICP		191.30	5	114	1.3
Total Chromium, Other		191.99	1	121	0.0
Method Group 191.XX PPM			7	114	7.3

ACID SOLUBLE COBALT

Acid Soluble Cobalt, Atomic Absorption		202.00	1	2.00	0.0
Acid Soluble Cobalt, ICP		202.30	4	4	0.5
Acid Soluble Cobalt, Other		202.99	1	4	0.0
Method Group 202.XX PPM			6	4	0.4

ACID SOLUBLE COPPER

Acid Soluble Copper, Atomic Absorption	975.01	221.00	2	1	0.1
Acid Soluble Copper, ICP		221.30	1	16	0.0
Acid Soluble Copper, Other		221.99	2	0	1.1
Method Group 221.XX PPM			4	6	3.2

ACID SOLUBLE IRON AS Fe₂O₃

Acid Soluble Iron, ICP		241.30	15	1.56	0.05
Acid Soluble Iron, Other		241.99	1	1.48	0.00
Method Group 241.XX PCT			18	1.55	0.07

TOTAL LEAD

Total Lead, Atomic Absorption		251.00	1	2	0.0
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Total Lead, ICP		251.30	3	2	0.4
Total Lead, Other		251.99	1	2	0.0
Method Group 251.XX PPM			5	2	0.2
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ACID SOLUBLE MANGANESE					
Acid Soluble Manganese, Atomic Absorption	972.02b	261.11	1	267	0.0
Acid Soluble Manganese, ICP	972.02a	261.30	4	251	32.8
Acid Soluble Manganese, Other		261.99	5	264	3.4
Method Group 261.XX PPM			10	262	16.6
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TOTAL MERCURY					
Total Mercury, Atomic Absorbtion	281.00		1	1	0.00
Method Group 281.XX PPM			1	1.10	0.00
TOTAL MOLYBDENUM					
Total Molybdenum, Atomic Absorbtion	289.00		1	45	0.0
Total Molybdenum, ICP	289.30		4	11	1.5
Total Molybdenum, Other	289.99		1	12	0.0
Method Group 289.XX PPM			6	11	2.2
TOTAL NICKEL					
Total Nickel, Atomic Absorbtion	291.00		1	12	0.0
Total Nickel, ICP	291.30		3	16	0.1
Total Nickel, Other	291.99		2	10	5.4
Method Group 291.XX PPM			6	16	3.0
TOTAL SELENIUM					
Total Selenium, Atomic Absorbtion	301.00		1	40	0.0
Total Selenium, ICP	301.30		1	13	0.0
Method Group 301.XX PPM			2	27	12.3
SODIUM AS Na₂O					
Sodium, Atomic Absorbtion	983.04	311.00	2	0.22	0.00
Sodium, Other		311.99	6	0.22	0.01
Method Group 311.XX PCT			8	0.22	0.01
ACID SOLUBLE ZINC					
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	2	47.7	0.5
Acid Soluble Zinc, ICP		321.30	5	50.3	9.8
Acid Soluble Zinc, Other		321.99	1	45.9	0.0
Method Group 321.XX PPM			8	47.7	5.9
FLUORIDE					
Water Soluble Zinc, Atomic Absorption	325.00		1	2.13	0.00
Volumetric	325.10		12	2.15	0.15
Distilled/Electrode	325.99		2	2.17	0.02
Method Group 325.XX PCT			15	2.14	0.11

001.99 Ammoniacal Nitrogen		
Lab		Other
79	17.51	-1.576
Std Dev	17.47	-1.000
24	17.44	-0.552
23	17.43	-0.394
24	17.42	-0.236
23	17.41	-0.079
Median	17.41	0.000
34	17.40	0.079
140	17.35	0.867
Std Dev	17.34	1.000
32	17.34	1.025
32	17.34	1.104
310	17.33	1.182

001.XX Ammoniacal Nitrogen		
Lab		Total Method
79	17.51	-1.576
Std Dev	17.47	-1.000
24	17.44	-0.552
23	17.43	-0.394
24	17.42	-0.236
23	17.41	-0.079
Median	17.41	0.000
34	17.40	0.079
140	17.35	0.867
Std Dev	17.34	1.000
32	17.34	1.025
32	17.34	1.104
310	17.33	1.182

007.99 Percent UREA		
Lab		Other
310	0.51	0.000
Median	0.51	0.000

007.XX Percent UREA		
Lab		Total Method
310	0.51	0.000
Median	0.51	0.000

010.11 Total Nitrogen		
Lab		Modified Comprehensive

219	17.52	0.000
Median	17.52	0.000

010.12 Total Nitrogen		
Lab		Salicylic
119	18.02	-1.340
Std Dev	17.98	-1.000
Median	17.87	0.000
Std Dev	17.76	1.000
107	17.72	1.340

010.60 Total Nitrogen		
Lab		Combustion
49	18.40	-3.119
66	18.02	-1.267
24	18.01	-1.243
61	18.01	-1.243
47	18.00	-1.169
61	17.98	-1.096
Std Dev	17.96	-1.000
219	17.90	-0.682
24	17.88	-0.609
14	17.87	-0.536
14	17.84	-0.414
137	17.76	0.000
Median	17.76	0.000
80	17.75	0.024
9	17.74	0.097
77	17.73	0.122
31	17.72	0.171
79	17.71	0.244
63	17.63	0.609
Std Dev	17.55	1.000
111	17.42	1.657
29	17.33	2.081
103	17.27	2.363
95	17.00	3.679

010.99 Total Nitrogen		
Lab		Other
275	17.71	-0.744
32	17.66	-0.372
32	17.66	-0.372
275	17.65	-0.298

34	17.61	0.000
Median	17.61	0.000
40	17.48	0.968
40	17.48	0.968
Std Dev	17.48	1.000
140	17.44	1.266
99	17.17	3.276

010.XX Total Nitrogen		
Lab		Total Method
49	18.40	-2.478
66	18.02	-1.083
119	18.02	-1.083
24	18.01	-1.065
61	18.01	-1.065
47	18.00	-1.010
Std Dev	17.99	-1.000
61	17.98	-0.955
219	17.90	-0.642
24	17.88	-0.587
14	17.87	-0.532
14	17.84	-0.441
137	17.76	-0.128
80	17.75	-0.110
9	17.74	-0.055
77	17.73	-0.037
31	17.72	0.000
107	17.72	0.000
Median	17.72	0.000
275	17.71	0.037
79	17.71	0.055
32	17.66	0.220
32	17.66	0.220
275	17.65	0.257
63	17.63	0.330
34	17.61	0.404
219	17.52	0.753
40	17.48	0.881
40	17.48	0.881
Std Dev	17.45	1.000
140	17.44	1.028
111	17.42	1.120
29	17.33	1.439
103	17.27	1.652

99	17.17	2.019
95	17.00	2.643

020.10 Total Phosphate		
Lab		Gravimetric Quimociac
40	48.67	-0.663
40	48.67	-0.663
Median	47.60	0.000
219	46.54	0.663
241	46.45	0.719

020.20 Total Phosphate		
Lab		Spectrometric
95	46.70	-2.211
9	46.61	-1.575
31	46.60	-1.507
24	46.54	-1.139
32	46.52	-1.005
Std Dev	46.52	-1.000
24	46.49	-0.804
32	46.45	-0.536
34	46.44	-0.469
14	46.37	0.000
Median	46.37	0.000
79	46.35	0.134
61	46.35	0.168
14	46.34	0.201
310	46.32	0.335
61	46.31	0.436
Std Dev	46.22	1.000
140	46.19	1.240
23	46.08	1.977
23	45.97	2.680

020.30 Total Phosphate		
Lab		Alka. Quimociac
111	46.19	0.000
Median	46.19	0.000

020.40 Total Phosphate		
Lab		Automated
137	46.75	-1.352
Std Dev	46.67	-1.000
9	46.58	-0.569

Median	46.46	0.000
219	46.34	0.569
111	46.34	0.593

020.99		Total Phosphate
Lab		Other
99	46.66	0.000
Median	46.66	0.000

020.XX		Total Phosphate
Lab		Total Method
40	48.67	-11.926
40	48.67	-11.926
137	46.75	-1.608
95	46.70	-1.367
99	46.66	-1.126
Std Dev	46.63	-1.000
9	46.61	-0.858
31	46.60	-0.804
9	46.58	-0.724
24	46.54	-0.509
219	46.54	-0.482
32	46.52	-0.402
24	46.49	-0.241
32	46.45	-0.027
241	46.45	0.000
Median	46.45	0.000
34	46.44	0.027
14	46.37	0.402
79	46.35	0.509
61	46.35	0.536
14	46.34	0.563
219	46.34	0.563
111	46.34	0.590
310	46.32	0.670
61	46.31	0.750
Std Dev	46.26	1.000
111	46.19	1.394
140	46.19	1.394
23	46.08	1.983
23	45.97	2.546

030.20		Insoluble Phosphate
Lab		Spectrometric
140	0.23	-1.398
61	0.22	-1.165
Std Dev	0.21	-1.000
23	0.19	-0.466
23	0.18	-0.233
79	0.18	-0.117
Median	0.17	0.000
61	0.17	0.117
24	0.13	0.932
24	0.13	0.932
Std Dev	0.13	1.000
14	0.07	2.330
14	0.06	2.563

030.30		Insoluble Phosphate
Lab		Alka. Quimociac
31	0.23	0.000
Median	0.23	0.000

030.40		Insoluble Phosphate
Lab		Automated
34	0.21	-1.340
Std Dev	0.20	-1.000
Median	0.16	0.000
Std Dev	0.13	1.000
9	0.12	1.340

030.99		Insoluble Phosphate
Lab		Other
32	0.22	-1.340
Std Dev	0.21	-1.000
Median	0.20	0.000
Std Dev	0.19	1.000
32	0.18	1.340

030.XX		Insoluble Phosphate
Lab		Total Method
140	0.23	-0.788
31	0.23	-0.709
32	0.22	-0.631
61	0.22	-0.631
34	0.21	-0.473
23	0.19	-0.158
23	0.18	0.000

040.20		Indirect Available Phosphate
Lab		Spectrometric
24	46.41	-1.067
Std Dev	46.40	-1.000
31	46.37	-0.886
24	46.36	-0.840
14	46.31	-0.613
14	46.27	-0.432
79	46.18	0.000
Median	46.18	0.000
61	46.14	0.159
61	46.13	0.227
140	45.96	0.999
Std Dev	45.95	1.000
23	45.90	1.272
23	45.78	1.794

040.99		Indirect Available Phosphate
Lab		Other
9	46.49	-1.340
Std Dev	46.46	-1.000
Median	46.36	0.000
Std Dev	46.25	1.000
34	46.22	1.340

040.XX		Indirect Available Phosphate
Lab		Total Method
9	46.49	-1.540
24	46.41	-1.083
Std Dev	46.40	-1.000
31	46.37	-0.855
24	46.36	-0.798
14	46.31	-0.513

041.10		Direct Available Phosphate
Lab		Gravimetric Quimociac
79	46.18	0.257
61	46.14	0.456
61	46.13	0.542
Std Dev	46.04	1.000
140	45.96	1.511
23	45.90	1.853
23	45.78	2.509

041.40		Direct Available Phosphate
Lab		Automated
47	46.23	-2.144
Std Dev	46.19	-1.000
119	46.15	0.000
Median	46.15	0.000
219	46.13	0.536

041.50		Direct Available Phosphate
Lab		ICP
49	47.44	-1.340
Std Dev	46.76	-1.000
Median	44.78	0.000
Std Dev	42.80	1.000
38	42.13	1.340

041.60		Direct Available Phosphate
Lab		EDTA Extract
63	46.59	-1.500
Std Dev	46.30	-1.000
47	45.95	-0.372
Median	45.73	0.000
66	45.52	0.372
Std Dev	45.16	1.000
80	44.80	1.631

041.10		Direct Available Phosphate
Lab		Gravimetric Quimociac
47	46.23	-2.144
Std Dev	46.19	-1.000
119	46.15	0.000
Median	46.15	0.000
219	46.13	0.536

137 46.31 0.695

041.99 Direct Available Phosphate		
Lab		Other
103	46.31	0.000
Median	46.31	0.000

041.XX Direct Available Phosphate		
Lab		Total Method

49	47.44	-2.871
29	47.00	-1.797
Std Dev	46.68	-1.000
77	46.64	-0.899
63	46.59	-0.789
219	46.37	-0.246
103	46.31	-0.099
137	46.31	-0.099
Median	46.27	0.000
47	46.23	0.099
119	46.15	0.296
219	46.13	0.345
47	45.95	0.801
Std Dev	45.86	1.000
66	45.52	1.848
80	44.80	3.623
38	42.13	10.212

048.20 Water Soluble Phosphate		
Lab		Spectrometric

14	42.30	-2.242
14	42.27	-2.179
Std Dev	41.80	-1.000
31	41.61	-0.513
24	41.60	-0.501
24	41.59	-0.476
79	41.54	-0.351
23	41.40	0.000
Median	41.40	0.000
23	41.38	0.050
140	41.26	0.351
61	41.07	0.839
Std Dev	41.00	1.000
61	40.94	1.152
275	40.55	2.129

275 40.50 2.254

048.30 Water Soluble Phosphate		
Lab		Alka. Quimociac
111	40.24	0.000
Median	40.24	0.000

048.99 Water Soluble Phosphate		
Lab		Other

32	42.24	-0.175
32	42.18	-0.061
9	42.14	0.000
Median	42.14	0.000
Std Dev	41.57	1.000
34	41.41	1.279
111	39.15	5.246

048.XX Water Soluble Phosphate		
Lab		Total Method

14	42.30	-1.363
14	42.27	-1.325
32	42.24	-1.278
32	42.18	-1.178
9	42.14	-1.124
Std Dev	42.06	-1.000
31	41.61	-0.300
24	41.60	-0.293
24	41.59	-0.277
79	41.54	-0.200
34	41.41	0.000
Median	41.41	0.000
23	41.40	0.015
23	41.38	0.046
140	41.26	0.231
61	41.07	0.531
61	40.94	0.724
Std Dev	40.76	1.000
275	40.55	1.325
275	40.50	1.402
111	40.24	1.810
111	39.15	3.489

050.30 Soluble Potash		
Lab		Atomic Absorption(Oxalate)

95 0.00 0.000
Median 0.00 0.000

050.50 %K ₂ O Soluble Potash		
Lab		ICP(Oxalate)

23	0.11	-1.340
Std Dev	0.10	-1.000
Median	0.10	0.000
Std Dev	0.10	1.000
23	0.10	1.340

050.51 %K ₂ O Soluble Potash		
Lab		ICP(Citrate)

219	0.20	-1.340
Std Dev	0.19	-1.000
Median	0.16	0.000
Std Dev	0.12	1.000
137	0.11	1.340

050.99 Soluble Potash		
Lab	%K ₂ O	Other

80	0.25	-75.040
99	0.12	-2.680
Std Dev	0.11	-1.000
24	0.11	0.000
24	0.11	0.000
61	0.11	0.000
61	0.11	0.000
Median	0.11	0.000
Std Dev	0.11	1.000
111	0.11	1.608

050.XX Soluble Potash		
Lab	%K ₂ O	Total Method

80	0.25	-39.495
219	0.20	-25.389
99	0.12	-1.411
Std Dev	0.11	-1.000
24	0.11	0.000
24	0.11	0.000
61	0.11	0.000
61	0.11	0.000
137	0.11	0.000
Median	0.11	0.000

111 0.11 0.846
Std Dev 0.11 1.000
 23 0.11 1.411
 23 0.10 2.821
 95 0.00 31.032

060.00 Free Water		
Lab		Vacuum Oven

140	2.54	-1.197
Std Dev	2.48	-1.000
79	2.39	-0.708
23	2.36	-0.607
23	2.36	-0.590
34	2.32	-0.472
24	2.28	-0.337
24	2.25	-0.236
219	2.19	-0.017
Median	2.18	0.000
9	2.18	0.017
32	2.17	0.051
32	2.01	0.590
111	1.96	0.742
Std Dev	1.88	1.000
31	1.85	1.129
310	1.70	1.618
14	0.83	4.551
14	0.81	4.635

060.10 Free Water		
Lab		Vacuum Desiccate

61	4.32	-1.340
Std Dev	4.26	-1.000
Median	4.08	0.000
Std Dev	3.90	1.000
61	3.84	1.340

060.XX Free Water		
Lab		Total Method

61	4.32	-7.271
61	3.84	-5.593
140	2.54	-1.098
Std Dev	2.51	-1.000
79	2.39	-0.597
23	2.36	-0.493

23	2.36	-0.475
34	2.32	-0.354
24	2.28	-0.216
24	2.25	-0.112
Median	2.22	0.000
219	2.19	0.112
9	2.18	0.147
32	2.17	0.182
32	2.01	0.735
111	1.96	0.890
Std Dev	1.93	1.000
31	1.85	1.288
310	1.70	1.790
14	0.83	4.798
14	0.81	4.885

101.00 Acid Soluble Calcium		
Lab	%CaO	Atomic Absorption
219	0.21	0.000
Median	0.21	0.000

101.30 Acid Soluble Calcium		
Lab	%CaO	ICP
34	0.37	-1.540
Std Dev	0.35	-1.000
24	0.35	-0.924
61	0.35	-0.770
31	0.33	-0.370
61	0.33	-0.308
9	0.32	0.000
23	0.32	0.000
24	0.32	0.000
Median	0.32	0.000
23	0.31	0.308
32	0.31	0.462
32	0.31	0.462
Std Dev	0.29	1.000
111	0.27	1.540
14	0.23	2.926
14	0.22	3.234
38	0.16	4.929

101.99 Acid Soluble Calcium		
Lab	%CaO	Other

219	0.21	0.000
Median	0.21	0.000

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
34	0.37	-0.766
24	0.35	-0.510
61	0.35	-0.447
31	0.33	-0.281
61	0.33	-0.255
9	0.32	-0.128
23	0.32	-0.128
24	0.32	-0.128
23	0.31	0.000
Median	0.31	0.000
32	0.31	0.064
32	0.31	0.064
111	0.27	0.510
Std Dev	0.23	1.000
14	0.23	1.085
14	0.22	1.212
219	0.21	1.263
219	0.21	1.283
38	0.16	1.914

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
219	1.46	0.000
Median	1.46	0.000

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
24	1.47	-0.928
24	1.47	-0.928
23	1.46	-0.722
61	1.45	-0.412
61	1.44	-0.309
34	1.43	-0.103
23	1.43	0.000
32	1.43	0.000
Median	1.43	0.000
9	1.40	0.618
32	1.40	0.618
111	1.39	0.825

Std Dev	1.38	1.000
31	1.37	1.134
14	1.32	2.268
14	1.30	2.680
38	0.82	12.472

121.99 Acid Soluble Magnesium		
Lab	%MgO	Other
219	1.31	0.000
Median	1.31	0.000

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
24	1.47	-0.804
24	1.47	-0.804
23	1.46	-0.625
219	1.46	-0.545
61	1.45	-0.357
61	1.44	-0.268
34	1.43	-0.089
23	1.43	0.000
32	1.43	0.000
Median	1.43	0.000
9	1.40	0.536
32	1.40	0.536
111	1.39	0.715
31	1.37	0.983
Std Dev	1.37	1.000
14	1.32	1.965
219	1.31	2.117
14	1.30	2.323
38	0.82	10.809

144..01 Sulfate Sulfur (S)		
Lab		Gravimetric
79	1.25	-1.407
Std Dev	1.21	-1.000
241	1.19	-0.670
219	1.14	0.000
Median	1.14	0.000
61	1.09	0.670
61	1.07	0.938

144.70 Sulfur		
Lab		Spectrometric
14	1.10	-1.340
Std Dev	1.09	-1.000
Median	1.09	0.000
Std Dev	1.08	1.000
14	1.08	1.340

144.99 Sulfate Sulfur (S)		
Lab		Other
38	1.23	-7.504
Std Dev	1.14	-1.000
9	1.14	-0.715
32	1.14	-0.715
23	1.13	-0.357
24	1.13	-0.357
Median	1.13	0.000
24	1.12	0.357
23	1.12	0.715
32	1.12	0.715
Std Dev	1.11	1.000
34	1.05	5.360
31	1.04	6.075

144.XX Sulfate Sulfur (S)		
Lab		Total Method
79	1.25	-3.722
38	1.23	-3.276
241	1.19	-2.084
Std Dev	1.15	-1.000
219	1.14	-0.596
9	1.14	-0.447
32	1.14	-0.447
23	1.13	-0.298
24	1.13	-0.298
24	1.12	0.000
Median	1.12	0.000
23	1.12	0.149
32	1.12	0.149
14	1.10	0.744
61	1.09	0.893
Std Dev	1.09	1.000
14	1.08	1.340
61	1.07	1.489

34	1.05	2.084
31	1.04	2.382

145.99	Total Sulfur (S)	
Lab	Other	

111	1.02	0.000
Median	1.02	0.000

145.XX	Total Sulfur (S)	
Lab	Total Method	

111	1.02	0.000
Median	1.02	0.000

151.00	Total Arsenic	
Lab	Atomic Absorbtion	

310	1.20	0.000
Median	1.20	0.000

151.30	Total Arsenic	
Lab	ICP	

111	17.50	-2.442
24	16.20	-1.318
Std Dev	15.83	-1.000
9	15.00	-0.281
Median	14.68	0.000
61	14.35	0.281
61	14.35	0.281
Std Dev	13.52	1.000
31	10.30	3.782

151.XX	Total Arsenic	
Lab	Total Method	

111	17.50	-1.289
Std Dev	16.79	-1.000
24	16.20	-0.757
9	15.00	-0.266
61	14.35	0.000
Median	14.35	0.000
61	14.35	0.000
Std Dev	11.91	1.000
31	10.30	1.657
310	1.20	5.380

165.99	Acid Soluble Boron	
Lab	PPM	Other
24	45.80	0.000
Median	45.80	0.000

165.XX, ppm	Acid Soluble Boron	
Lab	PPM	Total Method
24	45.80	0.000
Median	45.80	0.000

181.00	Total Cadmium	
Lab	Atomic Absorbtion	

310	0.00	0.000
Median	0.00	0.000

181.30	Total Cadmium	
Lab	PPM	ICP

111	16.50	-4.542
Std Dev	6.65	-1.000
9	4.20	-0.117
Median	3.88	0.000
61	3.55	0.117
61	3.55	0.117

181.99	Total Cadmium	
Lab	Other	

24	3.58	0.000
Median	3.58	0.000

181.XX	Total Cadmium	
Lab	PPM	Total Method

111	16.50	-35.016
9	4.20	-1.719
Std Dev	3.93	-1.000
24	3.58	-0.041
Median	3.57	0.000
61	3.55	0.041
61	3.55	0.041
Std Dev	3.20	1.000
310	0.00	9.651

190.00	Aluminum	
Lab	%Al ₂ O ₃	ICP

310	1.54	-1.411
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Std Dev	1.53	-1.000
9	1.53	-0.987
32	1.52	-0.705
32	1.51	-0.564
14	1.51	-0.423
14	1.50	-0.141
23	1.49	0.000
34	1.49	0.000
Median	1.49	0.000
24	1.47	0.564
23	1.47	0.705
24	1.46	0.846
Std Dev	1.45	1.000
61	1.45	1.128
61	1.45	1.269
111	1.01	13.682

190.99	Aluminum	
Lab	%Al ₂ O ₃	Atomic Absorption

31	1.47	0.000
Median	1.47	0.000

190.XX	Aluminum	
Lab	%Al ₂ O ₃	Total Method

310	1.54	-1.489
9	1.53	-1.042
Std Dev	1.52	-1.000
32	1.52	-0.744
32	1.51	-0.596
14	1.51	-0.447
14	1.50	-0.149
23	1.49	0.000
34	1.49	0.000
Median	1.49	0.000
24	1.47	0.596
23	1.47	0.744
31	1.47	0.744
24	1.46	0.893
Std Dev	1.46	1.000
61	1.45	1.191
61	1.45	1.340
111	1.01	14.442

191.00	Total Chromium	
Lab	Atomic Absorbtion	
310	160.00	0.000
Median	160.00	0.000

191.30	Total Chromium	
Lab	ICP	

9	120.50	-5.518
Std Dev	114.77	-1.000
31	113.70	-0.158
61	113.50	0.000
Median	113.50	0.000
Std Dev	112.23	1.000
61	112.00	1.182
111	106.00	5.912

191.99	Total Chromium	
Lab	PPM	Other

24	121.00	0.000
Median	121.00	0.000

191.XX	Total Chromium	
Lab	PPM	Total Method

310	160.00	-7.755
24	121.00	-1.223
9	120.50	-1.139
Std Dev	119.67	-1.000
31	113.70	0.000
Median	113.70	0.000
61	113.50	0.034
61	112.00	0.285
Std Dev	107.73	1.000
111	106.00	1.290

202.00	Acid Soluble Cobalt	
Lab	Atomic Absorption	

310	2.00	0.000
Median	2.00	0.000

202.30	Acid Soluble Cobalt	
Lab	PPM	ICP

111	6.00	-3.050
Std Dev	4.89	-1.000
61	4.50	-0.277

Median	4.35	0.000
9	4.20	0.277
61	4.00	0.647

202.99	Acid Soluble Cobalt	
Lab	Other	
24	4.28	0.000
Median	4.28	0.000

202.XX	Acid Soluble Cobalt	
Lab	PPM	Total Method
111	6.00	-5.971
Std Dev	4.53	-1.000
61	4.50	-0.882
24	4.28	-0.136
Median	4.24	0.000
9	4.20	0.136
61	4.00	0.814
Std Dev	3.95	1.000
310	2.00	7.599

221.00	Acid Soluble Copper	
Lab	Atomic Absorption	
219	1.60	-1.340
Std Dev	1.57	-1.000
Median	1.48	0.000
Std Dev	1.40	1.000
310	1.37	1.340

221.30	Acid Soluble Copper	
Lab	PPM	ICP
111	15.50	0.000
Median	15.50	0.000

221.99	Acid Soluble Copper	
Lab	Other	
24	6.86	-1.340
Std Dev	6.49	-1.000
Median	5.39	0.000
Std Dev	4.29	1.000
219	3.92	1.340

221.XX	Acid Soluble Copper	
Lab	PPM	Total Method

111	15.50	-3.433
Std Dev	9.07	-1.000
24	6.86	-0.163
Median	6.43	0.000
310	6.00	0.163
219	3.92	0.950

241.30	Acid Soluble Iron	
Lab	%Fe ₂ O ₃	ICP
32	1.62	-1.340
32	1.62	-1.237
Std Dev	1.60	-1.000
34	1.60	-0.928
24	1.59	-0.722
24	1.59	-0.722
61	1.59	-0.618
61	1.57	-0.309
111	1.56	0.000
Median	1.56	0.000
9	1.54	0.309
23	1.54	0.309
23	1.53	0.515
38	1.52	0.722
31	1.51	0.928
Std Dev	1.51	1.000
14	1.50	1.237
14	1.46	2.062

241.99	Acid Soluble Iron	
Lab	%Fe ₂ O ₃	Other
219	1.48	0.000
Median	1.48	0.000

241.XX	Acid Soluble Iron	
Lab	%Fe ₂ O ₃	Total Method
32	1.62	-1.254
32	1.62	-1.167
Std Dev	1.61	-1.000
34	1.60	-0.908
219	1.60	-0.839
24	1.59	-0.735
24	1.59	-0.735
61	1.59	-0.648
61	1.57	-0.389

111	1.56	-0.130
Median	1.55	0.000
9	1.54	0.130
23	1.54	0.130
23	1.53	0.303
38	1.52	0.475
31	1.51	0.648
14	1.50	0.908
Std Dev	1.49	1.000
219	1.48	1.107
14	1.46	1.599
310	1.37	3.069

251.00	Total Lead	
Lab	Atomic Absorption	
310	2.00	0.000
Median	2.00	0.000

251.30	Total Lead	
Lab	PPM	ICP
61	2.60	-1.584
Std Dev	2.36	-1.000
61	1.95	0.000
Median	1.95	0.000
Std Dev	1.54	1.000
111	1.50	1.096

251.99	Total Lead	
Lab	Other	
24	1.80	0.000
Median	1.80	0.000

251.XX	Total Lead	
Lab	PPM	Total Method
61	2.60	-4.355
Std Dev	2.10	-1.000
310	2.00	-0.335
61	1.95	0.000
Median	1.95	0.000
Std Dev	1.80	1.000
24	1.80	1.005
111	1.50	3.015

261.11	Acid Soluble Manganese	
Lab	Atomic Absorption	
219	267.45	0.000
Median	267.45	0.000

261.30	Acid Soluble Manganese	
Lab	ICP	
9	281.50	-0.921
31	257.00	-0.175
Median	251.25	0.000
111	245.50	0.175
Std Dev	218.41	1.000
38	140.00	3.388

261.99	Acid Soluble Manganese	
Lab	PPM	Other
24	286.00	-6.479
Std Dev	267.40	-1.000
219	264.05	-0.015
61	264.00	0.000
Median	264.00	0.000
Std Dev	260.60	1.000
61	259.50	1.325
310	183.00	23.855

261.XX	Acid Soluble Manganese	
Lab	PPM	Total Method
24	286.00	-1.783
9	281.50	-1.452
Std Dev	275.35	-1.000
219	267.45	-0.419
219	264.05	-0.169
61	264.00	-0.165
Median	261.75	0.000
61	259.50	0.165
31	257.00	0.349
Std Dev	248.15	1.000
111	245.50	1.195
310	183.00	5.790
38	140.00	8.952

281.00	Total Mercury	
Lab	PPM	Atomic Absorption
310	1.10	0.000

Median	1.10	0.000
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281.30	Total Mercury	
Lab	PPM	ICP
24	<0.06	0.000
Median	0.00	0.000

281.XX	Total Mercury	
Lab	PPM	Total Method
24	<0.06	0.000
310	1.10	0.000
Median	1.10	0.000

289.00	Total Molybdenum	
Lab	Atomic Absorbtion	
310	45.00	0.000
Median	45.00	0.000

289.30	Total Molybdenum	
Lab	PPM	ICP
111		

289.99	Total Molybdenum	
Lab	PPM	Other
24	11.50	0.000
Median	11.50	0.000

289.XX	Total Molybdenum	
Lab	PPM	Total Method
310	45.00	-19.042
111	13.50	-1.269
Std Dev	13.02	-1.000
24	11.50	-0.141
Median	11.25	0.000
9	11.00	0.141
61	10.50	0.423
Std Dev	9.48	1.000
61	7.00	2.398

291.00	Total Nickel	
Lab	Atomic Absorbtion	
310	12.00	0.000
Median	12.00	0.000

291.30	Total Nickel	
Lab	ICP	
9	16.35	-2.680
Std Dev	16.13	-1.000
61	16.00	0.000
61	16.00	0.000
Median	16.00	0.000

291.99	Total Nickel	
Lab	PPM	Other
24	17.50	-1.340
Std Dev	15.66	-1.000
Median	10.25	0.000
Std Dev	4.84	1.000
111	3.00	1.340

291.XX	Total Nickel	
Lab	PPM	Total Method
24	17.50	-0.616
9	16.35	-0.144
61	16.00	0.000
61	16.00	0.000
Median	16.00	0.000
Std Dev	13.57	1.000
310	12.00	1.643
111	3.00	5.339

301.00	Total Selenium	
Lab	PPM	Atomic Absorbtion
310	40.00	0.000
Median	40.00	0.000

301.30	Total Selenium	
Lab	PPM	ICP
61	<1	0.000
61	<1	0.000
24	<0.28	0.000
111	13.00	0.000
Median	13.00	0.000

301.XX	Total Selenium	
Lab	PPM	Total Method
61	<1	0.000
61	<1	0.000

24	<0.28	0.000
310	40.00	-1.340
Std Dev	36.57	-1.000
Median	26.50	0.000
111	13.00	1.340

311.00	Sodium	
Lab	%Na ₂ O	Atomic Absorbtion
310	0.22	-1.340
Std Dev	0.22	-1.000
Median	0.22	0.000
Std Dev	0.22	1.000
61	0.22	1.340

311.99	Sodium	
Lab	%Na ₂ O	Other
111	1.72	-159.996
Std Dev	0.23	-1.000
24	0.23	-0.804
61	0.23	-0.268
Median	0.22	0.000
24	0.22	0.268
23	0.22	0.804
23	0.22	0.804

311.XX	Sodium	
Lab	%Na ₂ O	Total Method
111	1.72	-178.071
24	0.23	-1.191
Std Dev	0.23	-1.000
61	0.23	-0.596
24	0.22	0.000
310	0.22	0.000
Median	0.22	0.000
23	0.22	0.596
23	0.22	0.596
61	0.22	0.596

321.00	Acid Soluble Zinc	
Lab	Atomic Absorbtion	
219	48.38	-1.340
Std Dev	48.20	-1.000
Median	47.69	0.000
Std Dev	47.18	1.000

310	47.00	1.340
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321.30	Acid Soluble Zinc	
Lab	PPM	ICP
111	58.50	-0.844
24	54.60	-0.445
9	50.25	0.000
Median	50.25	0.000
61	41.50	0.895
Std Dev	40.47	1.000
61	40.00	1.048

321.99	Acid Soluble Zinc	
Lab	Other	
219	45.95	0.000
Median	45.95	0.000

321.XX	Acid Soluble Zinc	
Lab	PPM	Total Method
111	58.50	-2.227
24	54.60	-1.424
Std Dev	52.54	-1.000
9	50.25	-0.527
219	48.38	-0.142
Median	47.69	0.000
310	47.00	0.142
219	45.95	0.360
Std Dev	42.84	1.000
61	41.50	1.275
61	40.00	1.584

325.00	Fluoride	
Lab	Volumetric	
9	2.13	0.000
Median	2.13	0.000

325.10	Fluoride	
Lab	%	Electrode
32	2.28	-0.872
32	2.27	-0.775
23	2.20	-0.355
23	2.18	-0.226
24	2.15	-0.032
24	2.15	-0.032

Median	2.15	0.000
14	2.14	0.032
14	2.13	0.129
34	2.01	0.872
31	1.88	1.711
310	1.10	6.748
111	0.85	8.363

325.99		Fluoride
Lab	%	Other
61	2.20	-1.340
Median	2.17	0.000
61	2.14	1.340

325.XX		Fluoride
Lab	%	Total Method
32	2.28	-1.531
32	2.27	-1.367
23	2.20	-0.656
61	2.20	-0.656
23	2.18	-0.438
24	2.15	-0.109
24	2.15	-0.109
14	2.14	0.000
Median	2.14	0.000
61	2.14	0.055
9	2.13	0.164
14	2.13	0.164
34	2.01	1.422
31	1.88	2.844
310	1.10	11.376
111	0.85	14.111