

AFPC

2016-11

Grade

18-46-0

Sample

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, Other		001.99	11	17.49	0.08
Method Group 001.XX PCT			11	17.49	0.10
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	1	18.07	0.00
Total Nitrogen, Combustion	993.13	010.60	17	18.02	0.10
Total Nitrogen, Other		010.99	9	18.05	0.04
Method Group 010.XX PCT			27	18.04	0.09
TOTAL PHOSPHATE					
Total Phosphate, Gravimetric Quimociac		020.10	1	47.07	0.00
Total Phosphate, Spectrometric	978.02	020.20	17	46.73	0.19
Total Phosphate, ICP	970.03	020.40	2	46.41	0.21
Total Phosphate, Other	993.13	020.99	2	46.10	0.04
Method Group 020.XX PCT			22	46.67	0.31
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	7	0.19	0.05
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.17	0.00
Insoluble Phosphate, Automated	978.01	030.40	2	0.28	0.00
Insoluble Phosphate, Other		030.99	2	0.17	0.01
Method Group 030.XX PCT			12	0.19	0.10
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	8	46.49	0.39
Indirect Available Phosphate, Other		040.99	4	46.47	0.18
Method Group 040.XX PCT			12	46.49	0.29
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	2	46.54	0.11
Direct Available Phosphate, Spectrometric	960.03D	041.20	1	47.05	0.00
Direct Available Phosphate, Automated	978.01	041.40	1	45.16	0.00
Direct Available Phosphate, ICP		041.50	1	44.85	0.00
Direct Available Phosphate, EDTA Extract	993.01	041.60	4	46.14	0.27
Direct Available Phosphate, Other		041.99	1	46.41	0.00
Method Group 041.XX PCT			10	46.30	0.58
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Spectrometric	970.01	048.20	12	41.33	0.45
Water Soluble Phosphate, Other		048.99	4	41.56	0.16
Method Group 048.XX PCT			16	41.46	0.43
SOLUBLE POTASH AS K₂O					
Soluble Potash, ICP(Oxalate)		050.50	3	0.26	0.01
Soluble Potash, ICP(Citrate)		050.51	1	0.17	0.00
Soluble Potash, Other		050.99	8	0.25	0.06
Method Group 050.XX PCT			12	0.25	0.03
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	13	1.31	0.24
Free Water, Other		060.99	4	1.80	0.78
Method Group 060.XX PCT			17	1.31	0.35
ACID SOLUBLE CALCIUM AS CaO					
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.09	0.00
Acid Soluble Calcium, ICP		101.30	13	0.14	0.05
Acid Soluble Calcium, Other		101.99	1	0.09	0.00
Method Group 101.XX PCT			15	0.14	0.04
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	1.31	0.00
Acid Soluble Magnesium, ICP		121.30	13	1.35	0.04
Acid Soluble Magnesium, Other		121.99	3	1.37	0.06
Method Group 121.XX PCT			17	1.35	0.06
WATER SOLUBLE MAGNESIUM					
Water Soluble Magnesium, Other		131.99	2	0.01	0.00

Method Group 131.XX PCT		2	0.01	0.00
SULFATE SULFUR (S)				
Sulfur, Other	144.99	15	2.18	0.05
Method Group 144.XX PCT		15	2.18	0.06
TOTAL SULFUR (S)				
Sulfur, Other	145.99	2	2.50	0.1
Method Group 145.XX PCT		2	2.50	0.1
TOTAL ARSENIC				
Total Arsenic, ICP	980.02(b) 151.02	4	11.6	2.0
Total Arsenic, Other	151.99	3	11.3	0.5
Method Group 151.XX PPM		7	11.3	1.4
ACID SOLUBLE BORON				
Acid Soluble Boron, Other	165.99	1	79	0.0
Method Group 165.XX PPM		1	79	0.0
TOTAL CADMIUM				
Total Cadmium, Atomic Absorbtion	181.00	2	24	0.4
Total Cadmium, ICP	181.30	6	20.4	0.7
Total Cadmium, Other	181.99	1	21.5	0.0
Method Group 181.XX PPM		9	21.0	1.4
ALUMINUM AS Al₂O₃				
ICP, %		12	1.22	0.03
Water Soluble Chlorine, Other, %	190.99	3	1.19	0.04
Method Group 190.XX PCT		15	1.22	0.03
TOTAL CHROMIUM				
Total Chromium, Atomic Absorbtion	191.00	2	137	0.6
Total Chromium, ICP	191.30	7	183	3.5
Total Chromium, Other	191.99	1	189	0.0
Method Group 191.XX PPM		10	183	35.2
ACID SOLUBLE COBALT				
Acid Soluble Cobalt, ICP	202.30	5	2	0.3
Acid Soluble Cobalt, Other	202.99	1	3	0.0
Method Group 202.XX PPM		6	2	0.4
ACID SOLUBLE COPPER				
Acid Soluble Copper, Other	221.99	1	0.9	0.0
Method Group 221.XX PPM		7	5.5	67.3
ACID SOLUBLE IRON AS Fe₂O₃				
Acid Soluble Iron, ICP	241.30	13	1.25	0.02
Acid Soluble Iron, Other	241.99	3	1.09	0.20
Method Group 241.XX PCT		17	1.25	0.04
TOTAL LEAD				
Total Lead, Atomic Absorbtion	251.00	2	2	0.0
Total Lead, ICP	251.30	3	4	1.4
Total Lead, Other	251.99	1	0.4	0.0
Method Group 251.XX PPM		6	2	2.5
ACID SOLUBLE MANGANESE				
Acid Soluble Manganese, ICP	972.02a 261.30	1	186	0.0
Acid Soluble Manganese, Other	261.99	7	186	4.0
Method Group 261.XX PPM		8	186	4.0
TOTAL MERCURY				
Total Mercury, ICP	281.30	2	0.00	0.01
Method Group 281.XX PPM		2	0.03	0.01
TOTAL MOLYBDENUM				
Total Molybdenum, ICP	289.30	6	10	3.1
Total Molybdenum, Other	289.99	1	11	0.0
Method Group 289.XX PPM		7	11	3.4
TOTAL NICKEL				
Total Nickel, ICP	291.30	7	14.9	1.1
Total Nickel, icp	291.99	1	16.1	0.0
Method Group 291.XX PPM		8	14.9	1.8
TOTAL SELENIUM				
Total Selenium, ICP	301.30	5	0.2	0.7
Total Selenium, Other	301.99	1	0	0.0

Method Group 301.XX PPM		6	0.2	0.6
SODIUM AS Na₂O				
Sodium, Atomic Absorbtion	983.04 311.00	2	1.23	0.01
Sodium, Other	311.99	7	0.37	0.02
Method Group 311.XX PCT		9	0.38	0.05
ACID SOLUBLE ZINC				
Acid Soluble Zinc, Atomic Absorption	975.02 321.00	1	114.5	0.0
Acid Soluble Zinc, ICP	321.30	6	115.0	0.9
Acid Soluble Zinc, Other	321.99	3	122.0	6.2
Method Group 321.XX %		10	115.0	5.7
FLUORIDE				
Volumentric	325.10	11	0.61	0.07
Distilled/Electrode	325.99	4	0.57	0.10
Method Group 325.XX PCT		15	0.61	0.08

001.99 Ammoniacal Nitrogen		
Lab		Other
330	18.41	-11.018
330	18.16	-7.980
24	17.58	-1.132
Std Dev	17.57	-1.000
24	17.57	-0.953
32	17.54	-0.655
140	17.49	0.000
Median	17.49	0.000
34	17.48	0.060
34a	17.48	0.060
32	17.44	0.536
Std Dev	17.40	1.000
310	17.40	1.012
38	17.26	2.680

001.XX Ammoniacal Nitrogen		
Lab		Total Method
330	18.41	-11.018
330	18.16	-7.980
24	17.58	-1.132
Std Dev	17.57	-1.000
24	17.57	-0.953
32	17.54	-0.655
140	17.49	0.000
Median	17.49	0.000
34	17.48	0.060
34a	17.48	0.060
32	17.44	0.536
Std Dev	17.40	1.000
310	17.40	1.012
38	17.26	2.680

010.11 Total Nitrogen		
Lab		Modified Comprehensive
219	18.07	0.000
Median	18.07	0.000

010.60 Total Nitrogen		
Lab		Combustion
49	18.26	-2.422
47	18.19	-1.752
Std Dev	18.12	-1.000

14	18.09	-0.722
31	18.08	-0.618
61	18.08	-0.618
14	18.06	-0.412
24	18.05	-0.309
110	18.03	-0.103
24	18.02	0.000
Median	18.02	0.000
61	18.00	0.206
137	17.99	0.309
99	17.97	0.515
80	17.95	0.722
219	17.93	0.928
Std Dev	17.92	1.000
77	17.85	1.752
103	17.73	3.041
29	17.28	7.628

010.99 Total Nitrogen		
Lab		Other
330	18.73	-18.090
330	18.48	-11.390
Std Dev	18.09	-1.000
140	18.07	-0.536
23	18.06	-0.268
38	18.05	0.000
Median	18.05	0.000
32	18.04	0.268
23	18.02	0.804
Std Dev	18.01	1.000
32	18.00	1.340
335	17.39	17.822

010.XX Total Nitrogen		
Lab		Total Method
330	18.73	-9.662
330	18.48	-6.136
49	18.26	-3.033
47	18.19	-2.116
Std Dev	18.11	-1.000
14	18.09	-0.705
31	18.08	-0.564
61	18.08	-0.564
140	18.07	-0.423

219	18.07	-0.353
14	18.06	-0.282
23	18.06	-0.282
24	18.05	-0.141
38	18.05	-0.141
32	18.04	0.000
Median	18.04	0.000
110	18.03	0.141
23	18.02	0.282
24	18.02	0.282
32	18.00	0.564
61	18.00	0.564
137	17.99	0.705
99	17.97	0.987
Std Dev	17.97	1.000
80	17.95	1.269
219	17.93	1.552
77	17.85	2.680
103	17.73	4.443
335	17.39	9.239
29	17.28	10.720

020.10 Total Phosphate		
Lab		Gravimetric Quimociac
219	47.07	0.000
Median	47.07	0.000

020.20 Total Phosphate		
Lab		Spectrometric
61	47.06	-1.727
61	46.99	-1.366
31	46.97	-1.263
Std Dev	46.92	-1.000
99	46.89	-0.825
14	46.85	-0.644
14	46.84	-0.567
32	46.79	-0.335
32	46.74	-0.052
140	46.73	0.000
Median	46.73	0.000
24	46.63	0.490
34	46.60	0.644
34a	46.60	0.644
24	46.59	0.696

Std Dev	46.53	1.000
110	46.51	1.108
310	46.50	1.160
23	46.44	1.495
23	46.43	1.546

020.40 Total Phosphate		
Lab		Automated
219	46.70	-1.340
Std Dev	46.63	-1.000
Median	46.41	0.000
Std Dev	46.20	1.000
137	46.13	1.340

020.99 Total Phosphate		
Lab		Other
330	46.15	-1.340
Std Dev	46.13	-1.000
Median	46.10	0.000
Std Dev	46.06	1.000
330	46.05	1.340

020.XX Total Phosphate		
Lab		Total Method
219	47.07	-1.559
61	47.06	-1.540
61	46.99	-1.267
31	46.97	-1.189
Std Dev	46.92	-1.000
99	46.89	-0.858
14	46.85	-0.721
14	46.84	-0.663
32	46.79	-0.487
32	46.74	-0.273
140	46.73	-0.234
219	46.70	-0.136
Median	46.67	0.000
24	46.63	0.136
34	46.60	0.253
34a	46.60	0.253
24	46.59	0.292
110	46.51	0.604
310	46.50	0.643
23	46.44	0.897

23	46.43	0.936
Std Dev	46.41	1.000
330	46.15	2.027
137	46.13	2.105
330	46.05	2.397

030.20 Insoluble Phosphate		
Lab Spectrometric		
23	0.30	-2.033
24	0.29	-1.848
Std Dev	0.24	-1.000
140	0.22	-0.462
23	0.19	0.000
Median	0.19	0.000
61	0.19	0.092
61	0.18	0.277
24	0.17	0.370

030.30 Insoluble Phosphate		
Lab Alka. Quimociac		
31	0.17	0.000
Median	0.17	0.000

030.40 Insoluble Phosphate		
Lab Automated		
34	0.28	0.000
34a	0.28	0.000
Median	0.28	0.000

030.99 Insoluble Phosphate		
Lab Other		
32	0.19	-1.340
Std Dev	0.18	-1.000
Median	0.17	0.000
Std Dev	0.15	1.000
32	0.15	1.340

030.XX Insoluble Phosphate		
Lab Total Method		
23	0.30	-1.419
24	0.29	-1.293
34	0.28	-1.167
34a	0.28	-1.167
Std Dev	0.27	-1.000

140	0.22	-0.347
23	0.19	-0.032
Median	0.19	0.000
32	0.19	0.032
61	0.19	0.032
61	0.18	0.158
24	0.17	0.221
31	0.17	0.284
32	0.15	0.473

040.20 Indirect Available Phosphate		
Lab Spectrometric		
61	46.89	-1.026
Std Dev	46.87	-1.000
31	46.81	-0.833
61	46.81	-0.821
140	46.51	-0.064
Median	46.49	0.000
24	46.46	0.064
24	46.30	0.474
23	46.24	0.641
23	46.14	0.898

040.99 Indirect Available Phosphate		
Lab Other		
32	46.61	-0.768
32	46.59	-0.656
Median	46.47	0.000
34	46.35	0.656
34a	46.35	0.656

040.XX Indirect Available Phosphate		
Lab Total Method		
61	46.89	-1.688
31	46.81	-1.372
61	46.81	-1.351
Std Dev	46.72	-1.000
32	46.61	-0.506
32	46.59	-0.422
140	46.51	-0.106
Median	46.49	0.000
24	46.46	0.106
34	46.35	0.570
34a	46.35	0.570

24	46.30	0.781
Std Dev	46.25	1.000
23	46.24	1.055
23	46.14	1.477

041.10 Direct Available Phosphate		
Lab Gravimetric Quimociac		
219	46.69	-1.340
Std Dev	46.65	-1.000
Median	46.54	0.000
Std Dev	46.43	1.000
47	46.39	1.340

041.20 Direct Available Phosphate		
Lab Spectrometric		
47	47.05	0.000
Median	47.05	0.000

041.40 Direct Available Phosphate		
Lab Automated		
49	45.16	0.000
Median	45.16	0.000

041.50 Direct Available Phosphate		
Lab ICP		
80	44.85	0.000
Median	44.85	0.000

041.60 Direct Available Phosphate		
Lab EDTA Extract		
219	46.33	-0.664
77	46.28	-0.499
Median	46.14	0.000
29	46.01	0.499
Std Dev	45.87	1.000
137	45.68	1.702

041.99 Direct Available Phosphate		
Lab Other		
335	46.41	0.000
Median	46.41	0.000

041.XX Direct Available Phosphate		
Lab Total Method		

47	47.05	-1.556
Std Dev	46.78	-1.000
219	46.69	-0.812
335	46.41	-0.215
47	46.39	-0.183
219	46.33	-0.047
Median	46.30	0.000
77	46.28	0.047
29	46.01	0.617
Std Dev	45.83	1.000
137	45.68	1.305
49	45.16	2.405
80	44.85	3.045

048.20 Water Soluble Phosphate		
Lab Spectrometric		
31	41.84	-1.130
Std Dev	41.78	-1.000
14	41.77	-0.976
14	41.59	-0.579
61	41.54	-0.469
61	41.53	-0.447
140	41.44	-0.248
Median	41.33	0.000
23	41.22	0.248
24	41.20	0.292
24	40.96	0.811
330	40.90	0.943
Std Dev	40.87	1.000
23	40.78	1.219
330	40.20	2.498

048.99 Water Soluble Phosphate		
Lab Other		
32	41.72	-0.940
32	41.67	-0.631
Median	41.56	0.000
34	41.46	0.631
34a	41.46	0.631

048.XX Water Soluble Phosphate		
Lab Total Method		
31	41.84	-1.078
Std Dev	41.81	-1.000

14	41.77	-0.879
32	41.72	-0.723
32	41.67	-0.581
14	41.59	-0.369
61	41.54	-0.227
61	41.53	-0.199
34	41.46	0.000
34a	41.46	0.000
Median	41.46	0.000
140	41.44	0.057
23	41.22	0.695
24	41.20	0.752
Std Dev	41.11	1.000
24	40.96	1.418
330	40.90	1.588
23	40.78	1.943
330	40.20	3.588

050.50 Soluble Potash		
Lab	%K ₂ O	ICP(Oxalate)
99	0.29	-2.259
Std Dev	0.27	-1.000
23	0.26	0.000
Median	0.26	0.000
23	0.25	0.421

050.51 Soluble Potash		
Lab	%K ₂ O	ICP(Citrate)
137	0.17	0.000
Median	0.17	0.000

050.99 Soluble Potash		
Lab	%K ₂ O	Other
330	0.51	-4.509
330	0.49	-4.169
Std Dev	0.30	-1.000
61	0.26	-0.255
61	0.25	-0.085
Median	0.25	0.000
24	0.24	0.085
24	0.24	0.085
31	0.24	0.170
Std Dev	0.19	1.000
80	0.10	2.467

050.XX Soluble Potash		
Lab	%K ₂ O	Total Method
330	0.51	-12.669
330	0.49	-11.695
99	0.29	-1.705
Std Dev	0.27	-1.000
61	0.26	-0.487
23	0.26	-0.268
23	0.25	0.000
61	0.25	0.000
Median	0.25	0.000
24	0.24	0.487
24	0.24	0.487
31	0.24	0.731
Std Dev	0.23	1.000
137	0.17	4.142
80	0.10	7.309

060.00 Free Water		
Lab		Vacuum Oven
24	1.74	-1.752
32	1.70	-1.587
24	1.67	-1.464
31	1.60	-1.196
Std Dev	1.55	-1.000
219	1.55	-0.990
32	1.51	-0.804
23	1.31	0.000
Median	1.31	0.000
34	1.28	0.124
34a	1.28	0.124
23	1.28	0.144
140	1.26	0.227
61	1.08	0.948
Std Dev	1.07	1.000
61	0.96	1.464

060.99 Free Water		
Lab		Other
330	2.34	-0.691
330	2.31	-0.652
Median	1.80	0.000
14	1.29	0.652

14 1.21 0.755

060.XX Free Water		
Lab		Total Method
330	2.34	-3.539
330	2.31	-3.436
24	1.74	-1.460
32	1.70	-1.323
24	1.67	-1.220
Std Dev	1.60	-1.000
31	1.60	-0.996
219	1.55	-0.825
32	1.51	-0.670
23	1.31	0.000
Median	1.31	0.000
14	1.29	0.069
34	1.28	0.103
34a	1.28	0.103
23	1.28	0.120
140	1.26	0.189
14	1.21	0.344
61	1.08	0.790
Std Dev	1.02	1.000
61	0.96	1.220

101.00 Acid Soluble Calcium		
Lab	%CaO	Atomic Absorption
219	0.09	0.000
Median	0.09	0.000

101.30 Acid Soluble Calcium		
Lab	%CaO	ICP
31	1.38	-23.833
14	0.30	-3.159
61	0.23	-1.819
61	0.19	-1.053
Std Dev	0.19	-1.000
24	0.15	-0.191
32	0.15	-0.191
23	0.14	0.000
24	0.14	0.000
Median	0.14	0.000
23	0.13	0.096
32	0.12	0.287

34 0.12 0.287
34a 0.12 0.287
14 0.12 0.383

101.99 Acid Soluble Calcium		
Lab	%CaO	Other
219	0.09	0.000
Median	0.09	0.000

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
31	1.38	-35.122
14	0.30	-4.655
61	0.23	-2.680
61	0.19	-1.552
Std Dev	0.17	-1.000
24	0.15	-0.282
32	0.15	-0.282
23	0.14	0.000
24	0.14	0.000
Median	0.14	0.000
23	0.13	0.141
32	0.12	0.423
34	0.12	0.423
34a	0.12	0.423
14	0.12	0.564
Std Dev	0.10	1.000
219	0.09	1.312
219	0.09	1.382

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
219	1.31	0.000
Median	1.31	0.000

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
24	1.39	-0.853
23	1.38	-0.731
24	1.38	-0.731
32	1.38	-0.609
32	1.38	-0.609
61	1.36	-0.244
23	1.35	0.000

Median	1.35	0.000
34	1.34	0.244
34a	1.34	0.244
61	1.32	0.731
Std Dev	1.31	1.000
14	1.30	1.218
14	1.28	1.705
31	1.27	1.949

121.99	Acid Soluble Magnesium	
Lab	%MgO	Other
330	1.42	-0.865
330	1.37	0.000
Median	1.37	0.000
Std Dev	1.31	1.000
219	1.26	1.815

121.XX	Acid Soluble Magnesium	
Lab	%MgO	Total Method
330	1.42	-1.340
Std Dev	1.40	-1.000
24	1.39	-0.722
23	1.38	-0.618
24	1.38	-0.618
32	1.38	-0.515
32	1.38	-0.515
330	1.37	-0.309
61	1.36	-0.206
23	1.35	0.000
Median	1.35	0.000
34	1.34	0.206
34a	1.34	0.206
61	1.32	0.618
219	1.31	0.825
Std Dev	1.30	1.000
14	1.30	1.031
14	1.28	1.443
31	1.27	1.649
219	1.26	1.855

144.99	Sulfate Sulfur (S)	
Lab	Other	
330	7.77	-110.873
330	7.24	-100.351

23	2.26	-1.588
23	2.26	-1.489
Std Dev	2.23	-1.000
14	2.20	-0.397
14	2.19	-0.199
24	2.18	0.000
34	2.18	0.000
34a	2.18	0.000
Median	2.18	0.000
24	2.18	0.000
32	2.17	0.199
32	2.15	0.596
Std Dev	2.13	1.000
61	2.13	1.092
61	2.07	2.283
31	2.05	2.581

144.XX	Sulfate Sulfur (S)	
Lab	Total Method	
330	7.77	-110.873
330	7.24	-100.351
23	2.26	-1.588
23	2.26	-1.489
Std Dev	2.23	-1.000
14	2.20	-0.397
14	2.19	-0.199
24	2.18	0.000
34	2.18	0.000
34a	2.18	0.000
Median	2.18	0.000
24	2.18	0.000
32	2.17	0.199
32	2.15	0.596
Std Dev	2.13	1.000
61	2.13	1.092
61	2.07	2.283
31	2.05	2.581

145.99	Total Sulfur (S)	
Lab	Other	
330	2.59	-1.340
Std Dev	2.57	-1.000
Median	2.50	0.000
Std Dev	2.44	1.000

330	2.42	1.340
145.XX	Total Sulfur (S)	
Lab	Total Method	
330	2.59	-1.340
Std Dev	2.57	-1.000
Median	2.50	0.000
Std Dev	2.44	1.000
330	2.42	1.340

151.30	Total Arsenic	
Lab	ICP	
335	13.49	-0.951
61	12.50	-0.447
Median	11.63	0.000
24	10.75	0.447
Std Dev	9.67	1.000
31	8.25	1.725

151.99	Total Arsenic	
Lab	Other	
18	12.45	-2.483
Std Dev	11.73	-1.000
18	11.25	0.000
Median	11.25	0.000
140	11.16	0.197

151.XX	Total Arsenic	
Lab	Total Method	
335	13.49	-1.967
61	12.50	-1.100
18	12.45	-1.056
Std Dev	12.39	-1.000
18	11.25	0.000
Median	11.25	0.000
140	11.16	0.084
24	10.75	0.440
Std Dev	10.11	1.000
31	8.25	2.640

165.99	Acid Soluble Boron	
Lab	PPM	Other
24	79.35	0.000
Median	79.35	0.000

165.XX, ppm	Acid Soluble Boron	
Lab	PPM	Total Method
24	79.35	0.000
Median	79.35	0.000

181.00	Total Cadmium	
Lab	Atomic Absorbion	
330	24.00	-1.340
Std Dev	23.87	-1.000
Median	23.50	0.000
Std Dev	23.13	1.000
330	23.00	1.340

181.30	Total Cadmium	
Lab	PPM	ICP
18	21.15	-1.154
Std Dev	21.04	-1.000
335	21.01	-0.945
18	20.70	-0.505
Median	20.35	0.000
61	20.00	0.505
61	20.00	0.505
Std Dev	19.66	1.000
31	14.90	7.863

181.99	Total Cadmium	
Lab	Other	
24	21.50	0.000
Median	21.50	0.000

181.XX	Total Cadmium	
Lab	PPM	Total Method
330	24.00	-2.676
330	23.00	-1.782
Std Dev	22.12	-1.000
24	21.50	-0.442
18	21.15	-0.130
335	21.01	0.000
Median	21.01	0.000
18	20.70	0.272
61	20.00	0.898
61	20.00	0.898
Std Dev	19.89	1.000

31	14.90	5.454
190.00		
Lab	%Al ₂ O ₃	Aluminum ICP
32	1.28	-2.382
14	1.26	-1.390
14	1.26	-1.390
Std Dev	1.25	-1.000
32	1.24	-0.794
23	1.22	0.000
24	1.22	0.000
34	1.22	0.000
34a	1.22	0.000
Median	1.22	0.000
23	1.21	0.397
24	1.21	0.397
61	1.20	0.794
Std Dev	1.19	1.000
61	1.16	2.382
190.99		
Lab	%Al ₂ O ₃	Aluminum Atomic Absorption
31	1.23	-1.072
Std Dev	1.23	-1.000
330	1.19	0.000
Median	1.19	0.000
Std Dev	1.15	1.000
330	1.13	1.608
190.XX		
Lab	%Al ₂ O ₃	Aluminum Total Method
32	1.28	-2.680
14	1.26	-1.563
14	1.26	-1.563
Std Dev	1.24	-1.000
32	1.24	-0.893
31	1.23	-0.447
23	1.22	0.000
24	1.22	0.000
34	1.22	0.000
34a	1.22	0.000
Median	1.22	0.000
23	1.21	0.447
24	1.21	0.447

61	1.20	0.893
Std Dev	1.20	1.000
330	1.19	1.340
61	1.16	2.680
330	1.13	4.020
191.00		
Lab	Total Chromium Atomic Absorption	
330	138.00	-1.340
Std Dev	137.81	-1.000
Median	137.25	0.000
Std Dev	136.69	1.000
330	136.50	1.340
191.30		
Lab	Total Chromium ICP	
219	202.45	-5.360
61	189.00	-1.566
Std Dev	186.99	-1.000
61	184.00	-0.155
18	183.45	0.000
Median	183.45	0.000
31	183.00	0.127
18	180.50	0.832
Std Dev	179.91	1.000
335	0.18	51.701
191.99		
Lab	PPM	Total Chromium Other
24	188.50	0.000
Median	188.50	0.000
191.XX		
Lab	PPM	Total Chromium Total Method
219	202.45	-0.665
61	189.00	-0.200
24	188.50	-0.182
61	184.00	-0.027
18	183.45	-0.008
Median	183.23	0.000
31	183.00	0.008
18	180.50	0.094
Std Dev	154.31	1.000
330	138.00	1.564

330	136.50	1.616
335	0.18	6.330
202.30		
Lab	PPM	Acid Soluble Cobalt ICP
18		
202.99		
Lab	Acid Soluble Cobalt Other	
24	2.52	0.000
Median	2.52	0.000
202.XX		
Lab	PPM	Acid Soluble Cobalt Total Method
24	2.52	-1.055
Std Dev	2.50	-1.000
18	2.40	-0.670
18	2.40	-0.670
Median	2.20	0.000
61	2.00	0.670
61	2.00	0.670
Std Dev	1.90	1.000
31	1.80	1.340
221.00		
Lab	Acid Soluble Copper Atomic Absorption	
330	148.50	-0.027
330	147.00	0.000
Median	147.00	0.000
Std Dev	92.10	1.000
219	1.38	2.653
221.30		
Lab	PPM	Acid Soluble Copper ICP
18	8.85	-3.553
Std Dev	5.27	-1.000
31	4.23	-0.258
Median	3.86	0.000
61	3.50	0.258
61	3.50	0.258
221.99		
Lab	Acid Soluble Copper Other	
24	5.48	0.000
Median	5.48	0.000

221.XX		
Lab	PPM	Acid Soluble Copper Total Method
330	148.50	-2.588
330	147.00	-2.561
Std Dev	60.75	-1.000
18	8.85	-0.061
24	5.48	0.000
Median	5.48	0.000
31	4.23	0.023
61	3.50	0.036
61	3.50	0.036
241.30		
Lab	%Fe ₂ O ₃	Acid Soluble Iron ICP
24	1.28	-1.340
23	1.28	-1.117
Std Dev	1.27	-1.000
24	1.27	-0.670
32	1.26	-0.447
23	1.26	-0.223
34	1.25	0.000
61	1.25	0.000
34a	1.25	0.000
Median	1.25	0.000
32	1.24	0.670
14	1.23	0.893
Std Dev	1.23	1.000
61	1.23	1.117
14	1.22	1.340
31	1.22	1.340
241.99		
Lab	%Fe ₂ O ₃	Acid Soluble Iron Other
219	1.33	-1.202
Std Dev	1.29	-1.000
330	1.09	0.000
Median	1.09	0.000
Std Dev	0.89	1.000
330	0.80	1.478
241.XX		
Lab	%Fe ₂ O ₃	Acid Soluble Iron Total Method
219	1.38	-4.188

219	1.33	-2.680
24	1.28	-1.005
Std Dev	1.28	-1.000
23	1.28	-0.837
24	1.27	-0.503
32	1.26	-0.335
23	1.26	-0.167
34	1.25	0.000
61	1.25	0.000
34a	1.25	0.000
Median	1.25	0.000
32	1.24	0.503
14	1.23	0.670
61	1.23	0.837
Std Dev	1.22	1.000
14	1.22	1.005
31	1.22	1.005
330	1.09	5.360
330	0.80	15.243

251.00	Total Lead	
Lab	Atomic Absorbtion	
330	2.00	0.000
330	2.00	0.000
Median	2.00	0.000

251.30	Total Lead	
Lab	PPM	ICP
61	<1.8	0.000
61	<1.8	0.000
31	<1	0.000
18	4.30	-0.106
18	4.15	0.000
Median	4.15	0.000
335	0.51	2.574

251.99	Total Lead	
Lab	Other	
24	0.36	0.000
Median	0.36	0.000

251.XX	Total Lead	
Lab	PPM	Total Method
61	<1.8	0.000

61	<1.8	0.000
31	<1	0.000
18	4.30	-1.127
18	4.15	-1.054
Std Dev	4.04	-1.000
330	2.00	0.000
330	2.00	0.000
Median	2.00	0.000
335	0.51	0.733
24	0.36	0.804

261.30	Acid Soluble Manganese	
Lab	ICP	
31	185.65	0.000
Median	185.65	0.000

261.99	Acid Soluble Manganese	
Lab	PPM	Other
219	196.00	-2.606
219	189.80	-1.067
Std Dev	189.53	-1.000
61	187.00	-0.372
24	185.50	0.000
Median	185.50	0.000
61	183.50	0.496
18	182.50	0.744
Std Dev	181.47	1.000
18	180.80	1.166

261.XX	Acid Soluble Manganese	
Lab	PPM	Total Method
219	196.00	-3.139
219	189.80	-1.272
Std Dev	188.90	-1.000
61	187.00	-0.429
31	185.65	-0.023
Median	185.58	0.000
24	185.50	0.023
61	183.50	0.625
18	182.50	0.926
Std Dev	182.25	1.000
18	180.80	1.438

281.30	Total Mercury	
Lab	PPM	ICP
335	0.05	-1.340
Std Dev	0.04	-1.000
Median	0.03	0.000
Std Dev	0.02	1.000
24	0.02	1.340

281.XX	Total Mercury	
Lab	PPM	Total Method
335	0.05	-1.340
Std Dev	0.04	-1.000
Median	0.03	0.000
Std Dev	0.02	1.000
24	0.02	1.340

289.30	Total Molybdenum	
Lab	PPM	ICP
18		
Std Dev	0.87	-1.000
61	0.20	0.000
Median	0.20	0.000
24	0.10	0.149
335	0.01	0.283

289.99	Total Molybdenum	
Lab	PPM	Other
24	11.40	0.000
Median	11.40	0.000

289.XX	Total Molybdenum	
Lab	PPM	Total Method
18	13.60	-0.797
18	12.50	-0.398
219	11.90	-0.181
24	11.40	0.000
Median	11.40	0.000
61	9.00	0.869
Std Dev	8.64	1.000
61	8.00	1.231
31	7.45	1.431

291.30	Total Nickel	
Lab	ICP	
219		

291.99	Total Nickel	
Lab	PPM	Other
24	16.05	0.000
Median	16.05	0.000

291.XX	Total Nickel	
Lab	PPM	Total Method
219	20.60	-3.948
Std Dev	16.36	-1.000
24	16.05	-0.783
335	15.89	-0.668
18	14.95	-0.017
Median	14.93	0.000
18	14.90	0.017
61	14.00	0.643
61	14.00	0.643
Std Dev	13.49	1.000
31	10.20	3.287

301.30	Total Selenium	
Lab	PPM	ICP
18	1.95	-2.606
18	1.00	-1.191
Std Dev	0.87	-1.000
61	0.20	0.000
Median	0.20	0.000
24	0.10	0.149
335	0.01	0.283

301.99	Total Selenium	
Lab	PPM	Other
140	0.12	0.000
Median	0.12	0.000

301.XX	Total Selenium	
Lab	PPM	Total Mthod
18	1.95	-3.451
18	1.00	-1.620
Std Dev	0.68	-1.000
61	0.20	-0.077
Median	0.16	0.000
140	0.12	0.077
24	0.10	0.116
335	0.01	0.289

311.00	Sodium	
Lab	%Na ₂ O	Atomic Absorbtion
330	1.24	-1.340
Std Dev	1.23	-1.000

Median	1.23	0.000
Std Dev	1.22	1.000
330	1.22	1.340

311.99 Lab	%Na ₂ O	Sodium Other
24	0.42	-2.481
Std Dev	0.39	-1.000
24	0.39	-0.993
23	0.38	-0.447
23	0.37	0.000
Median	0.37	0.000
61	0.36	0.496
31	0.36	0.744
61	0.35	0.993

311.XX Lab	%Na ₂ O	Sodium Total Method
330	1.24	-19.117
330	1.22	-18.782
Std Dev	0.42	-1.000
24	0.42	-0.916
24	0.39	-0.246
23	0.38	0.000
Median	0.38	0.000
23	0.37	0.201
61	0.36	0.424
31	0.36	0.536
61	0.35	0.648

321.00 Lab	Acid Soluble Zinc Atomic Absorption	
219	114.50	0.000
Median	114.50	0.000

321.30 Lab	PPM	Acid Soluble Zinc ICP
31	214.20	-114.347
Std Dev	115.87	-1.000
18	115.55	-0.634
24	115.00	0.000
61	115.00	0.000
Median	115.00	0.000
Std Dev	114.13	1.000

18	114.00	1.153
61	113.50	1.729

321.99 Lab	Acid Soluble Zinc Other	
330	124.50	-0.405
330	122.00	0.000
Median	122.00	0.000
Std Dev	115.82	1.000
219	107.95	2.275

321.XX Lab	PPM	Acid Soluble Zinc Total Method
31	214.20	-21.226
330	124.50	-2.033
330	122.00	-1.498
Std Dev	119.67	-1.000
18	115.55	-0.118
24	115.00	0.000
61	115.00	0.000
Median	115.00	0.000
219	114.50	0.107
18	114.00	0.214
61	113.50	0.321
Std Dev	110.33	1.000
219	107.95	1.509

325.10 Lab	%	Fluoride Electrode
32	0.74	-1.798
23	0.68	-0.952
32	0.68	-0.952
31	0.64	-0.317
24	0.63	-0.247
23	0.61	0.000
Median	0.61	0.000
24	0.61	0.106
14	0.57	0.670
34	0.56	0.741
34a	0.56	0.741
14	0.56	0.811

325.99 Lab	%	Fluoride Other
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61	0.65	-0.776
61	0.63	-0.576
Median	0.57	0.000
330	0.52	0.576
330	0.46	1.127

325.XX Lab	%	Fluoride Total Method
32	0.74	-2.071
23	0.68	-1.096
32	0.68	-1.096
61	0.65	-0.609
31	0.64	-0.365
24	0.63	-0.284
61	0.63	-0.284
23	0.61	0.000
Median	0.61	0.000
24	0.61	0.122
14	0.57	0.772
34	0.56	0.853
34a	0.56	0.853
14	0.56	0.934
330	0.52	1.584
330	0.46	2.477