

AFPC

2017-03

Grade

18-46-0

Sample

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, Other		001.99	11	17.14	0.16
Method Group 001.XX PCT			11	17.14	0.20
PERCENT UREA					
Percent UREA, Other		007.99	1	1.20	0.00
Method Group 007.XX PCT			1	1.20	0.00
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	4	17.80	0.10
Total Nitrogen, Combustion	993.13	010.60	24	17.87	0.18
Total Nitrogen, Other		010.99	9	17.79	0.12
Method Group 010.XX PCT			37	17.84	0.14
TOTAL PHOSPHATE					
Total Phosphate, Gravimetric Quimociac		020.10	1	47.34	0.00
Total Phosphate, Spectrometric	978.02	020.20	21	46.54	0.20
Total Phosphate, ICP	970.03	020.40	4	46.72	0.06
Total Phosphate, ICP, Lithium	970.02	020.50	1	47.33	0.00
Total Phosphate, Other	993.13	020.99	2	45.64	0.33
Method Group 020.XX PCT			29	46.65	0.26
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	9	0.11	0.06
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.08	0.00
Insoluble Phosphate, Automated	978.01	030.40	3	0.16	0.01
Insoluble Phosphate, Other		030.99	2	0.08	0.01
Method Group 030.XX PCT			15	0.11	0.07
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	10	46.46	0.25
Indirect Available Phosphate, Automated	960.02	040.40	2	46.58	0.00
Indirect Available Phosphate, Other		040.99	3	46.62	0.05
Method Group 040.XX PCT			15	46.57	0.21
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	3	46.72	0.12
Direct Available Phosphate, Spectrometric	960.03D	041.20	2	45.78	0.05
Direct Available Phosphate, Automated	978.01	041.40	1	45.84	0.00
Direct Available Phosphate, ICP		041.50	2	45.93	0.01
Direct Available Phosphate, EDTA Extract	993.01	041.60	6	46.20	0.74
Method Group 041.XX PCT			14	46.05	0.53
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Spectrometric	970.01	048.20	15	41.63	0.25
Water Soluble Phosphate, Other		048.99	7	42.03	0.40
Method Group 048.XX PCT			22	41.67	0.43
SOLUBLE POTASH AS K₂O					
Soluble Potash, ICP(Oxalate)		050.50	3	0.26	0.04
Soluble Potash, ICP(Citrate)		050.51	1	0.26	0.00
Soluble Potash, Other		050.99	11	0.26	0.02
Method Group 050.XX PCT			15	0.26	0.02
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	18	2.19	0.15
Free Water, Other		060.99	4	4.36	3.74
Method Group 060.XX PCT			22	2.19	0.24
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	17	0.18	0.04
Acid Soluble Calcium, Other		101.99	1	0.09	0.00
Method Group 101.XX PCT			19	0.17	0.06
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	3	1.27	0.13
Acid Soluble Magnesium, ICP		121.30	16	1.29	0.06

Acid Soluble Magnesium, Other		121.99	4	1.32	0.05
Method Group 121.XX PCT			23	1.29	0.07
WATER SOLUBLE MAGNESIUM					
Water Soluble Magnesium, Other		131.99	2	0.08	0.01
Method Group 131.XX PCT			2	0.08	0.01
SULFATE SULFUR (S)					
Sulfur, Gravimetric	980.02(a)	144.01	1	1.98	0.00
Sulfur, Other		144.99	16	1.97	0.05
Method Group 144.XX PCT			17	1.98	0.05
TOTAL SULFUR (S)					
Sulfur, Other		145.99	3	1.85	0.1
Method Group 145.XX PCT			3	1.85	0.1
TOTAL ARSENIC					
Total Arsenic, ICP	980.02(b)	151.02	6	9.5	4.2
Total Arsenic, Other		151.99	3	10.4	1.6
Method Group 151.XX PPM			9	9.5	3.9
ACID SOLUBLE BORON					
Acid Soluble Boron, Other		165.99	1	74	0.0
Method Group 165.XX PPM			1	74	0.0
TOTAL CADMIUM					
Total Cadmium, Atomic Absorbtion		181.00	2	25	0.0
Total Cadmium, ICP		181.30	10	22.5	3.0
Total Cadmium, Other		181.99	1	24.4	0.0
Method Group 181.XX PPM			13	23.9	3.2
ALUMINUM AS Al₂O₃					
ICP, %			18	1.27	0.03
Water Soluble Chlorine, Other, %		190.99	3	1.38	0.05
Method Group 190.XX PCT			21	1.28	0.05
TOTAL CHROMIUM					
Total Chromium, Atomic Absorbtion		191.00	2	188	1.3
Total Chromium, ICP		191.30	10	193	7.3
Total Chromium, Other		191.99	1	194	0.0
Method Group 191.XX PPM			13	191	7.9
ACID SOLUBLE COBALT					
Acid Soluble Cobalt, ICP		202.30	8	2	0.2
Acid Soluble Cobalt, Other		202.99	1	2	0.0
Method Group 202.XX PPM			9	2	0.2
ACID SOLUBLE COPPER					
Acid Soluble Copper, Other		221.99	1	0.9	0.0
Method Group 221.XX PPM			8	4.3	2.2
ACID SOLUBLE IRON AS Fe₂O₃					
Acid Soluble Iron, ICP		241.30	19	1.18	0.07
Acid Soluble Iron, Other		241.99	3	1.25	0.04
Method Group 241.XX PCT			23	1.19	0.10
TOTAL LEAD					
Total Lead, ICP		251.30	6	1	1.1
Method Group 251.XX PPM			6	1	1.4
ACID SOLUBLE MANGANESE					
Acid Soluble Manganese, ICP	972.02a	261.30	2	172	1.4
Acid Soluble Manganese, Other		261.99	9	176	2.1
Method Group 261.XX PPM			11	175	2.8
TOTAL MOLYBDENUM					
Total Molybdenum, ICP		289.30	9	24	2.7
Total Molybdenum, Other		289.99	1	24	0.0
Method Group 289.XX PPM			10	24	2.7
TOTAL NICKEL					
Total Nickel, ICP		291.30	8	16.6	0.8
Total Nickel, icp		291.99	2	7.1	4.9
Method Group 291.XX PPM			10	16.2	2.4
TOTAL SELENIUM					
Total Selenium, ICP		301.30	3	1.5	0.6
Total Selenium, Other		301.99	1	0	0.0

Method Group 301.XX PPM		4	1.0	1.1
SODIUM AS Na₂O				
Sodium, Atomic Absorbtion	983.04 311.00	2	0.54	0.07
Sodium, Other	311.99	10	0.52	0.03
Method Group 311.XX PCT		12	0.52	0.05
ACID SOLUBLE ZINC				
Acid Soluble Zinc, Atomic Absorption	975.02 321.00	3	160.0	0.2
Acid Soluble Zinc, ICP	321.30	8	166.5	12.0
Acid Soluble Zinc, Other	321.99	5	139.5	8.7
Method Group 321.XX %		16	160.3	17.0
FLUORIDE				
Volumentric	325.10	16	0.60	0.04
Distilled/Electrode	325.99	4	0.60	0.06
Method Group 325.XX PCT		20	0.60	0.06

001.99 Ammoniacal Nitrogen		
Lab		Other
113	17.65	-3.142
330	17.49	-2.197
Std Dev	17.30	-1.000
79	17.26	-0.770
330	17.23	-0.554
24	17.18	-0.277
24	17.14	0.000
Median	17.14	0.000
32	17.10	0.246
34	17.05	0.554
32	17.01	0.801
Std Dev	16.97	1.000
140	16.89	1.509
310	16.80	2.064

001.XX Ammoniacal Nitrogen		
Lab		Total Method
113	17.65	-3.142
330	17.49	-2.197
Std Dev	17.30	-1.000
79	17.26	-0.770
330	17.23	-0.554
24	17.18	-0.277
24	17.14	0.000
Median	17.14	0.000
32	17.10	0.246
34	17.05	0.554
32	17.01	0.801
Std Dev	16.97	1.000
140	16.89	1.509
310	16.80	2.064

007.99 Percent UREA		
Lab		Other
310	1.20	0.000
Median	1.20	0.000

007.XX Percent UREA		
Lab		Total Method
310	1.20	0.000
Median	1.20	0.000

010.11 Total Nitrogen		
Lab		Modified Comprehensive
219	17.94	-1.379
Std Dev	17.90	-1.000
113	17.86	-0.546
Median	17.80	0.000
43	17.75	0.546
43	17.74	0.703

010.60 Total Nitrogen		
Lab		Combustion
80	18.50	-3.527
137	18.23	-2.027
47	18.09	-1.250
66	18.09	-1.222
Std Dev	18.05	-1.000
49	18.03	-0.916
24	17.99	-0.694
31	17.97	-0.555
103	17.89	-0.139
219	17.89	-0.111
64	17.88	-0.083
24	17.88	-0.056
61	17.88	-0.056
Median	17.87	0.000
61	17.86	0.056
38	17.84	0.125
79	17.83	0.178
9	17.82	0.278
9	17.82	0.278
29	17.74	0.694
77	17.70	0.916
14	17.70	0.944
Std Dev	17.68	1.000
111	17.50	2.027
14	17.42	2.499
99	17.41	2.555
39	11.31	36.415

010.99 Total Nitrogen		
Lab		Other
23	17.87	-0.605
32	17.87	-0.605
275	17.86	-0.562

32	17.82	-0.173
330	17.79	0.000
Median	17.79	0.000
23	17.79	0.086
140	17.71	0.778
Std Dev	17.68	1.000
275	17.66	1.210
330	17.54	2.248

010.XX Total Nitrogen		
Lab		Total Method
80	18.50	-5.874
137	18.23	-3.462
47	18.09	-2.211
66	18.09	-2.166
49	18.03	-1.675
24	17.99	-1.318
31	17.97	-1.094
Std Dev	17.95	-1.000
219	17.94	-0.826
103	17.89	-0.424
219	17.89	-0.380
64	17.88	-0.335
24	17.88	-0.290
61	17.88	-0.290
23	17.87	-0.201
32	17.87	-0.201
275	17.86	-0.156
113	17.86	-0.112
61	17.86	-0.112
38	17.84	0.000
Median	17.84	0.000
79	17.83	0.085
9	17.82	0.246
9	17.82	0.246
32	17.82	0.246
330	17.79	0.425
23	17.79	0.514
43	17.75	0.826
29	17.74	0.916
43	17.74	0.960
Std Dev	17.73	1.000
140	17.71	1.228
77	17.70	1.273

14	17.70	1.318
275	17.66	1.675
330	17.54	2.747
111	17.50	3.060
14	17.42	3.819
99	17.41	3.908
39	11.31	58.366

020.10 Total Phosphate		
Lab		Gravimetric Quimociac
219	47.34	0.000
Median	47.34	0.000

020.20 Total Phosphate		
Lab		Spectrometric
111	47.21	-3.350
99	47.02	-2.382
31	46.81	-1.365
24	46.80	-1.290
24	46.77	-1.141
32	46.75	-1.067
140	46.75	-1.067
Std Dev	46.74	-1.000
32	46.70	-0.794
34	46.69	-0.769
23	46.54	-0.025
23	46.54	0.000
Median	46.54	0.000
14	46.53	0.050
113	46.52	0.074
79	46.50	0.176
43	46.49	0.223
14	46.48	0.273
43	46.48	0.298
61	46.42	0.596
61	46.35	0.943
Std Dev	46.33	1.000
310	46.10	2.159
38	45.36	5.849

020.40 Total Phosphate		
Lab		Automated
137	46.84	-2.135
Std Dev	46.78	-1.000

9	46.74	-0.318
Median	46.72	0.000
9	46.71	0.318
Std Dev	46.67	1.000
219	46.65	1.317

020.50	Total Phosphate	
Lab	ICP	
111	47.33	0.000
Median	47.33	0.000

020.99	Total Phosphate	
Lab	Other	
330	46.09	-1.340
Std Dev	45.97	-1.000
Median	45.64	0.000
Std Dev	45.30	1.000
330	45.19	1.340

020.XX	Total Phosphate	
Lab	Total Method	
219	47.34	-3.244
111	47.33	-3.197
111	47.21	-2.633
99	47.02	-1.716
Std Dev	46.86	-1.000
137	46.84	-0.893
31	46.81	-0.752
24	46.80	-0.682
24	46.77	-0.541
32	46.75	-0.470
140	46.75	-0.470
9	46.74	-0.423
9	46.71	-0.259
32	46.70	-0.212
34	46.69	-0.188
219	46.65	0.000
Median	46.65	0.000

23	46.54	0.517
23	46.54	0.541
14	46.53	0.588
113	46.52	0.611
79	46.50	0.708
43	46.49	0.752

14	46.48	0.799
43	46.48	0.823
Std Dev	46.44	1.000
61	46.42	1.105
61	46.35	1.434
310	46.10	2.586
330	46.09	2.656
38	45.36	6.082
330	45.19	6.871

030.20	Insoluble Phosphate	
Lab	Spectrometric	
113	0.22	-1.844
61	0.22	-1.813
Std Dev	0.17	-1.000
61	0.16	-0.867
23	0.12	-0.158
24	0.11	0.000
Median	0.11	0.000
24	0.10	0.079
140	0.08	0.473
79	0.07	0.552
Std Dev	0.04	1.000
23	0.04	1.025

030.30	Insoluble Phosphate	
Lab	Alka. Quimociac	
31	0.08	0.000
Median	0.08	0.000

030.40	Insoluble Phosphate	
Lab	Automated	
9	0.17	-0.893
34	0.16	0.000
Median	0.16	0.000
Std Dev	0.14	1.000
9	0.14	1.787

030.99	Insoluble Phosphate	
Lab	Other	
32	0.09	-1.340
Std Dev	0.09	-1.000
Median	0.08	0.000
Std Dev	0.08	1.000

32	0.08	1.340
030.XX	Insoluble Phosphate	
Lab	Total Method	
113	0.22	-1.960
61	0.22	-1.926
9	0.17	-1.005
Std Dev	0.16	-1.000
61	0.16	-0.921
34	0.16	-0.838
9	0.14	-0.503
23	0.12	-0.168
24	0.11	0.000
Median	0.11	0.000
24	0.10	0.084
32	0.09	0.251
31	0.08	0.419
32	0.08	0.503
140	0.08	0.503
79	0.07	0.586
Std Dev	0.05	1.000
23	0.04	1.089

040.20	Indirect Available Phosphate	
Lab	Spectrometric	
31	46.73	-1.055
Std Dev	46.72	-1.000
24	46.70	-0.917
140	46.68	-0.839
24	46.66	-0.780
23	46.50	-0.132
Median	46.46	0.000
79	46.43	0.132
23	46.43	0.142
113	46.30	0.641
61	46.22	0.966
Std Dev	46.21	1.000
61	46.20	1.045

040.40	Indirect Available Phosphate	
Lab	Automated	
9	46.58	-1.340
Std Dev	46.58	-1.000
Median	46.58	0.000

Std Dev	46.57	1.000
9	46.57	1.340

040.99	Indirect Available Phosphate	
Lab	Other	
32	46.66	-0.858
32	46.62	0.000
Median	46.62	0.000
Std Dev	46.57	1.000
34	46.54	1.822

040.XX	Indirect Available Phosphate	
Lab	Total Method	
31	46.73	-0.917
24	46.70	-0.717
140	46.68	-0.602
24	46.66	-0.516
32	46.66	-0.516
32	46.62	-0.287
9	46.58	-0.057
9	46.57	0.000
Median	46.57	0.000
34	46.54	0.201
23	46.50	0.430
79	46.43	0.817
23	46.43	0.831
Std Dev	46.40	1.000
113	46.30	1.559
61	46.22	2.035
61	46.20	2.150

041.10	Direct Available Phosphate	
Lab	Gravimetric Quimociac	
219	46.82	-0.812
107	46.72	0.000
Median	46.72	0.000
Std Dev	46.59	1.000
47	46.49	1.868

041.20	Direct Available Phosphate	
Lab	Spectrometric	
47	45.84	-1.340
Std Dev	45.82	-1.000
Median	45.78	0.000

Std Dev	45.73	1.000
38	45.72	1.340

041.40 Direct Available Phosphate Automated		
Lab		
49	45.84	0.000
Median	45.84	0.000

041.50 Direct Available Phosphate ICP		
Lab		
80	45.95	-1.340
Std Dev	45.94	-1.000
Median	45.93	0.000
Std Dev	45.92	1.000
66	45.91	1.340

041.60 Direct Available Phosphate EDTA Extract		
Lab		
64	46.43	-0.316
219	46.40	-0.269
137	46.24	-0.054
Median	46.20	0.000
77	46.16	0.054
Std Dev	45.45	1.000
29	45.09	1.482
103	44.54	2.234

041.XX Direct Available Phosphate Total Method		
Lab		
219	46.82	-1.747
107	46.72	-1.518
Std Dev	46.49	-1.000
47	46.49	-0.991
64	46.43	-0.865
219	46.40	-0.785
137	46.24	-0.418
77	46.16	-0.235
Median	46.05	0.000
80	45.95	0.235
66	45.91	0.326
47	45.84	0.487
49	45.84	0.498
38	45.72	0.770
Std Dev	45.62	1.000

29	45.09	2.196
103	44.54	3.476

048.20 Water Soluble Phosphate Spectrometric		
Lab		
31	42.15	-2.112
23	41.88	-1.015
Std Dev	41.88	-1.000
140	41.85	-0.873
24	41.70	-0.284
23	41.69	-0.244
14	41.68	-0.203
14	41.66	-0.122
24	41.63	0.000
Median	41.63	0.000
61	41.62	0.041
113	41.61	0.102
79	41.42	0.853
Std Dev	41.38	1.000
61	41.31	1.299
330	41.29	1.362
330	40.89	3.005
111	40.40	4.995

048.99 Water Soluble Phosphate Other		
Lab		
39	46.31	-10.720
Std Dev	42.42	-1.000
32	42.27	-0.601
32	42.18	-0.376
9	42.03	0.000
Median	42.03	0.000
9	41.91	0.288
Std Dev	41.63	1.000
34	41.46	1.415
111	40.28	4.371

048.XX Water Soluble Phosphate Total Method		
Lab		
39	46.31	-13.145
32	42.27	-1.687
32	42.18	-1.432
31	42.15	-1.361
9	42.03	-1.007

Std Dev	42.02	-1.000
9	41.91	-0.681
23	41.88	-0.596
140	41.85	-0.496
24	41.70	-0.085
23	41.69	-0.057
14	41.68	-0.028
Median	41.67	0.000
14	41.66	0.028
24	41.63	0.113
61	41.62	0.142
113	41.61	0.184
34	41.46	0.596
79	41.42	0.709
Std Dev	41.32	1.000
61	41.31	1.021
330	41.29	1.064
330	40.89	2.212
111	40.40	3.602
111	40.28	3.942

050.50 %K ₂ O Soluble Potash ICP(Oxalate)		
Lab		
23	0.26	0.000
23	0.26	0.000
Median	0.26	0.000
Std Dev	0.22	1.000
99	0.15	2.680

050.51 %K ₂ O Soluble Potash ICP(Citrate)		
Lab		
137	0.26	0.000
Median	0.26	0.000

050.99 %K ₂ O Soluble Potash Other		
Lab		
330	0.29	-1.447
61	0.28	-1.033
Std Dev	0.28	-1.000
61	0.28	-0.827
111	0.27	-0.620
24	0.26	-0.207
31	0.26	0.000
330	0.26	0.000

Median	0.26	0.000
43	0.24	0.577
43	0.24	0.657
Std Dev	0.23	1.000
24	0.23	1.033
80	0.10	6.406

050.XX %K ₂ O Soluble Potash Total Method		
Lab		
330	0.29	-1.882
61	0.28	-1.344
61	0.28	-1.075
Std Dev	0.27	-1.000
111	0.27	-0.807
23	0.26	-0.269
23	0.26	-0.269
24	0.26	-0.269
31	0.26	0.000
137	0.26	0.000
330	0.26	0.000
Median	0.26	0.000
43	0.24	0.750
43	0.24	0.854
Std Dev	0.24	1.000
24	0.23	1.344
99	0.15	5.646
80	0.10	8.335

060.00 Free Water Vacuum Oven		
Lab		
32	2.55	-2.320
140	2.47	-1.830
32	2.46	-1.765
79	2.37	-1.177
Std Dev	2.34	-1.000
34	2.31	-0.752
24	2.30	-0.719
31	2.27	-0.490
9	2.23	-0.229
24	2.21	-0.131
Median	2.19	0.000
23	2.17	0.131
9	2.15	0.261
23	2.14	0.327

113	2.11	0.523
111	2.10	0.621
Std Dev	2.04	1.000
43	2.01	1.177
43	1.99	1.340
61	1.88	2.059
61	1.80	2.549

060.99		
Lab	Free Water	Other
330	8.56	-1.122
Std Dev	8.10	-1.000
330	6.62	-0.605
Median	4.36	0.000
14	2.10	0.605
14	2.08	0.610

060.XX		
Lab	Free Water	Total Method
330	8.56	-32.963
330	6.62	-22.942
32	2.55	-1.838
140	2.47	-1.450
32	2.46	-1.398
Std Dev	2.38	-1.000
79	2.37	-0.932
34	2.31	-0.596
24	2.30	-0.570
31	2.27	-0.388
9	2.23	-0.181
24	2.21	-0.104
Median	2.19	0.000
23	2.17	0.104
9	2.15	0.207
23	2.14	0.259
113	2.11	0.414
14	2.10	0.492
111	2.10	0.492
14	2.08	0.596
43	2.01	0.932
Std Dev	2.00	1.000
43	1.99	1.062
61	1.88	1.631
61	1.80	2.020

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

101.30		
Lab	%CaO	Acid Soluble Calcium ICP
43	914.00	#####
43	912.00	#####
111	0.41	-5.137
14	0.30	-2.792
Std Dev	0.22	-1.000
61	0.21	-0.782
32	0.21	-0.782
61	0.21	-0.670
24	0.18	-0.112
32	0.18	0.000
Median	0.18	0.000
24	0.17	0.223
9	0.16	0.335
31	0.15	0.514
14	0.15	0.558
9	0.15	0.670
34	0.15	0.670
23	0.14	0.782
Std Dev	0.13	1.000
23	0.10	1.784

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

101.XX		
Lab	%CaO	Acid Soluble Calcium Total Method
43	914.00	#####
43	912.00	#####
111	0.41	-4.948
14	0.30	-2.783
Std Dev	0.21	-1.000
61	0.21	-0.928
32	0.21	-0.928
61	0.21	-0.825

24	0.18	-0.309
32	0.18	-0.206
24	0.17	0.000
Median	0.17	0.000
9	0.16	0.103
31	0.15	0.268
14	0.15	0.309
9	0.15	0.412
34	0.15	0.412
23	0.14	0.515
Std Dev	0.12	1.000
23	0.10	1.441
219	0.09	1.598
219	0.09	1.608

121.00		
Lab	%MgO	Acid Soluble Magnesium Atomic Absorption
275	1.28	-0.116
275	1.27	0.000
Median	1.27	0.000
Std Dev	1.14	1.000
219	0.94	2.564

121.30		
Lab	%MgO	Acid Soluble Magnesium ICP
61	1.37	-1.254
Std Dev	1.35	-1.000
24	1.34	-0.821
32	1.33	-0.562
34	1.33	-0.562
32	1.32	-0.475
61	1.31	-0.216
23	1.30	-0.130
23	1.30	-0.043
Median	1.29	0.000
9	1.29	0.043
9	1.29	0.130
31	1.26	0.648
14	1.25	0.821
14	1.24	0.908
24	1.24	0.994
Std Dev	1.23	1.000
43	1.14	2.637
43	1.13	2.810

121.99		
Lab	%MgO	Acid Soluble Magnesium Other
330	1.35	-0.677
111	1.32	-0.097
Median	1.32	0.000
330	1.31	0.097
Std Dev	1.26	1.000
219	1.10	4.102

121.XX		
Lab	%MgO	Acid Soluble Magnesium Total Method
61	1.37	-1.297
330	1.35	-1.037
Std Dev	1.35	-1.000
24	1.34	-0.865
32	1.33	-0.605
34	1.33	-0.605
32	1.32	-0.519
111	1.32	-0.519
330	1.31	-0.346
61	1.31	-0.259
23	1.30	-0.173
23	1.30	-0.086
9	1.29	0.000
Median	1.29	0.000
9	1.29	0.086
275	1.28	0.095
275	1.27	0.354
31	1.26	0.605
14	1.25	0.778
14	1.24	0.865
24	1.24	0.951
Std Dev	1.23	1.000
43	1.14	2.594
43	1.13	2.766
219	1.10	3.233
219	0.94	6.086

144..01		
Lab		Sulfate Sulfur (S) Gravimetric
79	1.98	0.000
Median	1.98	0.000

144.99 Sulfate Sulfur (S)		
Lab		Other
330	6.86	-102.923
330	6.58	-97.037
Std Dev	2.02	-1.000
14	2.00	-0.683
14	2.00	-0.683
34	2.00	-0.578
24	1.98	-0.263
61	1.98	-0.263
9	1.98	-0.158
Median	1.97	0.000
9	1.96	0.158
23	1.96	0.263
23	1.95	0.368
24	1.94	0.683
61	1.93	0.893
32	1.92	0.998
Std Dev	1.92	1.000
31	1.83	2.995
32	1.82	3.100

144.XX Sulfate Sulfur (S)		
Lab		Total Method
330	6.86	-109.188
330	6.58	-102.934
Std Dev	2.02	-1.000
14	2.00	-0.558
14	2.00	-0.558
34	2.00	-0.447
79	1.98	-0.144
24	1.98	-0.112
61	1.98	-0.112
9	1.98	0.000
Median	1.98	0.000
9	1.96	0.335
23	1.96	0.447
23	1.95	0.558
24	1.94	0.893
Std Dev	1.93	1.000
61	1.93	1.117
32	1.92	1.228
31	1.83	3.350
32	1.82	3.462

145.99 Total Sulfur (S)		
Lab		Other
111	1.96	-1.787
Std Dev	1.91	-1.000
43	1.85	0.000
Median	1.85	0.000
43	1.79	0.893

145.XX Total Sulfur (S)		
Lab		Total Method
111	1.96	-1.787
Std Dev	1.91	-1.000
43	1.85	0.000
Median	1.85	0.000
43	1.79	0.893

151.30 Total Arsenic		
Lab		ICP
43	15.10	-1.336
43	14.65	-1.229
Std Dev	13.69	-1.000
64	9.50	-0.004
Median	9.48	0.000
24	9.47	0.004
31	7.15	0.555
113	6.10	0.805

151.99 Total Arsenic		
Lab		Other
140	11.68	-0.792
18	10.40	0.000
Median	10.40	0.000
Std Dev	8.78	1.000
18	7.35	1.888

151.XX Total Arsenic		
Lab		Total Method
43	15.10	-1.733
43	14.65	-1.594
Std Dev	12.73	-1.000
140	11.68	-0.675
18	10.40	-0.279
64	9.50	0.000

Median		
9.50		0.000
24	9.47	0.011
18	7.35	0.665
31	7.15	0.727
Std Dev	6.27	1.000
113	6.10	1.052

165.99 Acid Soluble Boron		
Lab	PPM	Other
24	74.20	0.000
Median	74.20	0.000

165.XX, ppm Acid Soluble Boron		
Lab	PPM	Total Method
24	74.20	0.000
Median	74.20	0.000

181.00 Total Cadmium		
Lab		Atomic Absorption
330	25.00	0.000
330	25.00	0.000
Median	25.00	0.000

181.30 Total Cadmium		
Lab	PPM	ICP
18	25.25	-0.908
61	24.50	-0.659
61	24.50	-0.659
18	23.90	-0.460
64	23.03	-0.171
Median	22.52	0.000
113	22.00	0.171
111	21.00	0.503
43	20.09	0.807
43	19.61	0.966
Std Dev	19.50	1.000
31	14.25	2.744

181.99 Total Cadmium		
Lab		Other
24	24.35	0.000
Median	24.35	0.000

181.XX Total Cadmium		
Lab	PPM	Total Method
18	25.25	-0.517
330	25.00	-0.421
330	25.00	-0.421
61	24.50	-0.230
61	24.50	-0.230
24	24.35	-0.172
18	23.90	0.000
Median	23.90	0.000
64	23.03	0.333
113	22.00	0.727
Std Dev	21.29	1.000
111	21.00	1.110
43	20.09	1.461
43	19.61	1.644
31	14.25	3.695

190.00 Aluminum		
Lab	%Al ₂ O ₃	ICP
275	1.41	-4.841
275	1.39	-4.202
9	1.33	-1.815
9	1.32	-1.643
32	1.31	-1.297
Std Dev	1.30	-1.000
14	1.29	-0.605
23	1.28	-0.086
24	1.28	-0.086
61	1.28	-0.086
Median	1.27	0.000
23	1.27	0.086
32	1.27	0.086
34	1.27	0.086
43	1.27	0.086
43	1.27	0.086
43	1.27	0.259
14	1.26	0.605
24	1.26	0.605
Std Dev	1.24	1.000
61	1.24	1.297
111	0.93	11.844

190.99 Aluminum		
Lab	%Al ₂ O ₃	Atomic Absorption

330	1.40	-0.462
330	1.38	0.000
Median	1.38	0.000
Std Dev	1.32	1.000
31	1.26	2.218

190.XX	%Al ₂ O ₃	Aluminum Total Method
275	1.41	-3.350
330	1.40	-3.045
275	1.39	-2.899
330	1.38	-2.436
9	1.33	-1.218
9	1.32	-1.096
Std Dev	1.32	-1.000
32	1.31	-0.853
14	1.29	-0.365
23	1.28	0.000
24	1.28	0.000
61	1.28	0.000
Median	1.28	0.000
23	1.27	0.122
32	1.27	0.122
34	1.27	0.122
43	1.27	0.122
43	1.27	0.244
14	1.26	0.487
24	1.26	0.487
31	1.26	0.487
61	1.24	0.975
Std Dev	1.23	1.000
111	0.93	8.405

191.00	Total Chromium Atomic Absorbtion
330	189.50
Std Dev	189.06
Median	187.75
Std Dev	186.44
330	186.00

191.30	Total Chromium ICP
61	203.00

Std Dev	200.54	-1.000
31	200.50	-0.994
61	199.50	-0.857
18	197.80	-0.624
113	196.00	-0.377
Median	193.25	0.000
111	190.50	0.377
18	189.75	0.480
64	189.16	0.562
Std Dev	185.96	1.000
43	178.00	2.091
43	177.00	2.228

191.99	Total Chromium Other
24	193.50
Median	193.50

191.XX	Total Chromium Total Method
61	203.00
31	200.50
61	199.50
18	197.80
Std Dev	196.95
113	196.00
24	193.50
111	190.50
Median	190.50
18	189.75
330	189.50
64	189.16
330	186.00
Std Dev	184.05
43	178.00
43	177.00

202.30	Acid Soluble Cobalt ICP
61	

202.99	Acid Soluble Cobalt Other
24	1.92
Median	1.92

202.XX	Acid Soluble Cobalt Total Method
61	3.00
64	2.55
18	2.25
Std Dev	2.19
18	2.00
43	2.00
43	2.00
61	2.00
Median	2.00
24	1.92
Std Dev	1.81
111	0.50

221.00	Acid Soluble Copper Atomic Absorption
219	1.26
Median	1.26

221.30	Acid Soluble Copper ICP
111	6.00
18	4.90
18	4.75
64	4.28
Median	4.28
61	2.50
Std Dev	2.36
43	2.00
43	2.00

221.99	Acid Soluble Copper Other
24	4.30
Median	4.30

221.XX	Acid Soluble Copper Total Method
111	6.00
18	4.90
18	4.75
24	4.30

Median	4.29	0.000
64	4.28	0.006
61	2.50	0.994
Std Dev	2.49	1.000
43	2.00	1.272
43	2.00	1.272

241.30	Acid Soluble Iron ICP
14	1.70
275	1.35
275	1.32
23	1.28
23	1.28
Std Dev	1.25
61	1.23
32	1.22
24	1.19
61	1.19
111	1.18
Median	1.18
34	1.18
14	1.17
9	1.16
9	1.16
24	1.15
32	1.15
31	1.15
Std Dev	1.11
43	1.07
43	1.07

241.99	Acid Soluble Iron Other
330	1.26
330	1.25
Median	1.25
Std Dev	1.21
219	1.14

241.XX	Acid Soluble Iron Total Method
14	1.70
275	1.35

275	1.32	-1.695
23	1.28	-1.184
23	1.28	-1.122
Std Dev	1.27	-1.000
219	1.26	-0.935
330	1.26	-0.935
330	1.25	-0.810
61	1.23	-0.499
32	1.22	-0.374
24	1.19	-0.062
61	1.19	0.000
Median	1.19	0.000
111	1.18	0.062
34	1.18	0.125
14	1.17	0.187
9	1.16	0.312
9	1.16	0.374
24	1.15	0.436
32	1.15	0.436
31	1.15	0.499
219	1.14	0.548
Std Dev	1.10	1.000
43	1.07	1.496
43	1.07	1.496

251.30 Total Lead		
Lab	PPM	ICP
61	<1.8	0.000
18	3.05	-1.834
18	2.75	-1.567
Std Dev	2.11	-1.000
43	1.00	-0.008
Median	0.99	0.000
275	0.98	0.008
43	0.75	0.215
275	0.60	0.348

251.99 Total Lead		
Lab	PPM	Other
24	<0.0005	0.000
Median	0.00	0.000

251.XX Total Lead		
Lab	PPM	Total Method

61	<1.8	0.000
24	<0.0005	0.000
18	3.05	-1.834
18	2.75	-1.567
Std Dev	2.11	-1.000
43	1.00	-0.008
Median	0.99	0.000
275	0.98	0.008
43	0.75	0.215
275	0.60	0.348

261.30 Acid Soluble Manganese		
Lab	PPM	ICP
31	173.85	-1.340
Std Dev	173.36	-1.000
Median	171.93	0.000
Std Dev	170.49	1.000
111	170.00	1.340

261.99 Acid Soluble Manganese		
Lab	PPM	Other
61	183.00	-3.655
219	178.40	-1.413
18	177.60	-1.023
Std Dev	177.55	-1.000
24	175.50	0.000
61	175.50	0.000
Median	175.50	0.000
18	175.35	0.073
219	174.85	0.317
Std Dev	173.45	1.000
43	173.00	1.218
43	171.50	1.949

261.XX Acid Soluble Manganese		
Lab	PPM	Total Method
61	183.00	-3.280
219	178.40	-1.308
Std Dev	177.68	-1.000
18	177.60	-0.965
24	175.50	-0.064
61	175.50	-0.064
18	175.35	0.000
Median	175.35	0.000

219	174.85	0.214
31	173.85	0.643
Std Dev	173.02	1.000
43	173.00	1.008
43	171.50	1.651
111	170.00	2.294

281.30 Total Mercury		
Lab	PPM	ICP
24	<0.001	0.000
Median	0.00	0.000

281.XX Total Mercury		
Lab	PPM	Total Method
24	<0.001	0.000
Median	0.00	0.000

289.30 Total Molybdenum		
Lab	PPM	ICP
61		

289.99 Total Molybdenum		
Lab	PPM	Other
24	24.45	0.000
Median	24.45	0.000

289.XX Total Molybdenum		
Lab	PPM	Total Method
61	25.00	-0.459
18	24.90	-0.414
64	24.51	-0.237
111	24.50	-0.235
24	24.45	-0.213
Median	23.98	0.000
18	23.50	0.213
61	23.50	0.213
Std Dev	21.74	1.000
43	20.85	1.400
43	20.55	1.534
31	15.25	3.909

291.30 Total Nickel		
Lab	PPM	ICP
61		

291.99 Total Nickel		
Lab	PPM	Other
24	13.70	-1.340
Std Dev	12.03	-1.000
Median	7.10	0.000
Std Dev	2.17	1.000
111	0.50	1.340

291.XX Total Nickel		
Lab	PPM	Total Method
61	18.50	-1.152
Std Dev	18.20	-1.000
18	17.15	-0.476
61	17.00	-0.401
64	16.80	-0.301
18	16.40	-0.100
Median	16.20	0.000
43	16.00	0.100
43	16.00	0.100
Std Dev	14.20	1.000
24	13.70	1.252
31	10.85	2.680
111	0.50	7.865

301.30 Total Selenium		
Lab	PPM	ICP
18	1.70	-0.324
18	1.50	0.000
Median	1.50	0.000
Std Dev	0.88	1.000
24	0.05	2.356

301.99 Total Selenium		
Lab	PPM	Other
140	0.45	0.000
Median	0.45	0.000

301.XX Total Selenium		
Lab	PPM	Total Method
18	1.70	-0.809
18	1.50	-0.586
Median	0.98	0.000
140	0.45	0.586
Std Dev	0.08	1.000

24 0.05 1.037

311.00 Sodium		
Lab	%Na ₂ O	Atomic Absorption
330	0.63	-1.340
Std Dev	0.61	-1.000
Median	0.54	0.000
Std Dev	0.47	1.000
330	0.45	1.340

311.99 Sodium		
Lab	%Na ₂ O	Other
24	0.59	-2.772
111	0.57	-2.033
Std Dev	0.54	-1.000
61	0.54	-0.739
23	0.52	-0.185
61	0.52	-0.185
Median	0.52	0.000
23	0.51	0.185
31	0.51	0.185
24	0.49	0.924
Std Dev	0.49	1.000
43	0.47	1.487
43	0.47	1.549

311.XX Sodium		
Lab	%Na ₂ O	Total Method
330	0.63	-2.677
24	0.59	-1.746
111	0.57	-1.280
Std Dev	0.56	-1.000
61	0.54	-0.466
23	0.52	-0.116
61	0.52	-0.116
Median	0.52	0.000
23	0.51	0.116
31	0.51	0.116
24	0.49	0.582
43	0.47	0.937
43	0.47	0.976
Std Dev	0.47	1.000
330	0.45	1.630

321.00 Acid Soluble Zinc		
Lab	PPM	Atomic Absorption
275	160.00	0.000
275	160.00	0.000
Median	160.00	0.000
Std Dev	159.78	1.000
219	159.40	2.680

321.30 Acid Soluble Zinc		
Lab	PPM	ICP
111	296.50	-10.864
31	190.90	-2.042
Std Dev	178.42	-1.000
18	172.25	-0.485
18	171.90	-0.455
Median	166.45	0.000
61	161.00	0.455
64	161.00	0.456
61	160.50	0.497
Std Dev	154.48	1.000
24	143.00	1.959

321.99 Acid Soluble Zinc		
Lab	PPM	Other
330	165.00	-2.921
219	149.70	-1.168
Std Dev	148.23	-1.000
43	139.50	0.000
Median	139.50	0.000
43	138.00	0.172
330	135.00	0.515

321.XX Acid Soluble Zinc		
Lab	PPM	Total Method
111	296.50	-9.763
31	190.90	-2.196
Std Dev	174.21	-1.000
18	172.25	-0.860
18	171.90	-0.835
330	165.00	-0.340
61	161.00	-0.054
64	161.00	-0.053
61	160.50	-0.018
Median	160.25	0.000

275	160.00	0.018
275	160.00	0.018
219	159.40	0.061
219	149.70	0.756
Std Dev	146.29	1.000
24	143.00	1.236
43	139.50	1.487
43	138.00	1.594
330	135.00	1.809

325.10 Fluoride		
Lab	%	Electrode
111	1.11	-12.955
23	0.65	-1.270
32	0.65	-1.143
32	0.63	-0.635
9	0.62	-0.508
31	0.62	-0.508
79	0.62	-0.508
9	0.60	0.000
24	0.60	0.000
Median	0.60	0.000
23	0.59	0.254
275	0.59	0.292
275	0.58	0.559
34	0.54	1.524
14	0.54	1.613
24	0.53	1.778
14	0.51	2.286

325.99 Fluoride		
Lab	%	Other
61	0.65	-0.893
61	0.63	-0.536
Median	0.60	0.000
330	0.57	0.536
330	0.53	1.251

325.XX Fluoride		
Lab	%	Total Method
111	1.11	-10.315
23	0.65	-1.011
32	0.65	-0.910
61	0.65	-0.910

32	0.63	-0.506
61	0.63	-0.506
9	0.62	-0.405
31	0.62	-0.405
79	0.62	-0.405
9	0.60	0.000
24	0.60	0.000
Median	0.60	0.000
23	0.59	0.202
275	0.59	0.233
275	0.58	0.445
330	0.57	0.708
34	0.54	1.214
14	0.54	1.284
24	0.53	1.416
330	0.53	1.517
14	0.51	1.820