

AFPC

Sample

2019-08

Grade

18-46-0

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, MgO distillation	920.03	001.10	2	17.63	0.05
Ammoniacal Nitrogen, Other		001.99	12	17.62	0.12
Method Group 001.XX PCT			14	17.62	0.12
NITRATE NITROGEN					
Nitrate Nitrogen, Other		002.99	1	0.01	0.00
Method Group 002.XX PCT			1	0.01	0.00
AMMON & NITRATE N					
Ammon & Nitrate N, Other		009.99	2	17.61	0.10
Method Group 009.XX PCT			2	17.61	0.12
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	3	17.80	0.03
Total Nitrogen, Combustion	993.13	010.60	17	17.76	0.10
Total Nitrogen, Other		010.99	3	17.82	0.32
Method Group 010.XX PCT			23	17.76	0.10
TOTAL PHOSPHATE					
Total Phosphate, Spectrometric	978.02	020.20	23	46.85	0.21
Total Phosphate, ICP	970.03	020.40	2	46.66	0.22
Total Phosphate, Other	993.13	020.99	2	46.60	1.11
Method Group 020.XX PCT			27	46.85	0.36
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	12	0.05	0.05
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.03	0.00
Insoluble Phosphate, Automated	978.01	030.40	3	0.04	0.01
Method Group 030.XX PCT			16	0.05	0.06
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	15	46.81	0.21
Indirect Available Phosphate, Other		040.99	1	46.94	0.00
Method Group 040.XX PCT			16	46.82	0.26
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	2	47.27	0.18
Direct Available Phosphate, Spectrometric	960.03D	041.20	2	46.99	0.31
Direct Available Phosphate, Automated	978.01	041.40	1	46.19	0.00
Direct Available Phosphate, ICP		041.50	2	46.39	0.15
Direct Available Phosphate, EDTA Extract	993.01	041.60	4	46.41	0.88
Direct Available Phosphate, Other		041.99	2	45.85	0.85
Method Group 041.XX PCT			13	46.60	0.73
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Spectrometric	970.01	048.20	19	43.65	0.82
Water Soluble Phosphate, Other		048.99	2	42.97	0.42
Method Group 048.XX PCT			21	43.61	0.96
SOLUBLE POTASH AS K₂O					
Soluble Potash, ICP(Oxalate)		050.50	3	0.17	0.01
Soluble Potash, ICP(Citrate)		050.51	1	0.18	0.00
Soluble Potash, Other		050.99	8	0.17	0.01
Method Group 050.XX PCT			12	0.17	0.01
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	14	0.95	0.13
Free Water, Vacuum Desiccate	965.08A	060.10	3	0.56	0.20
Free Water, Other		060.99	5	0.92	0.14
Method Group 060.XX PCT			22	0.93	0.19
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	16	0.43	0.05

Acid Soluble Calcium, Other		101.99	1	0.22	0.00
Method Group 101.XX PCT			18	0.43	0.06
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	0.72	0.00
Acid Soluble Magnesium, ICP		121.30	16	1.16	0.04
Acid Soluble Magnesium, Other		121.99	2	0.96	0.17
Method Group 121.XX PCT			19	1.15	0.08
WATER SOLUBLE MAGNESIUM					
Water Soluble Magnesium, Other		131.99	1		0.00
Method Group 131.XX PCT			1	0.00	0.00
SULFATE SULFUR (S)					
Sulfur, Gravimetric	980.02(a)	144.01	3	2.15	2.88
Sulfur, Other		144.99	13	2.17	0.05
Method Group 144.XX PCT			16	2.16	0.07
TOTAL SULFUR (S)					
Sulfur, Other		145.99	3	2.17	0.1
Method Group 145.XX PCT			3	2.17	0.1
TOTAL ARSENIC					
Total Arsenic, ICP	980.02(b)	151.02	6	1.1	0.4
Method Group 151.XX PPM			6	1.1	0.5
ACID SOLUBLE BORON					
Acid Soluble Boron, Other		165.99	2	80	3.2
Method Group 165.XX PPM			2	80	3.9
WATER SOLUBLE BORON					
Water Soluble Boron, Other		171.99	1	56	0.0
Method Group 171.XX PPM			1	56	0.0
TOTAL CADMIUM					
Total Cadmium, Atomic Absorbtion		181.00	1	36	0.0
Total Cadmium, ICP		181.30	9	35.0	2.5
Total Cadmium, Other		181.99	1	37.5	0.0
Method Group 181.XX PPM			11	35.5	2.9
ALUMINUM AS Al₂O₃					
ICP, %			16	0.53	0.02
Water Soluble Chlorine, Other, %		190.99	2	0.52	0.01
Method Group 190.XX PCT			18	0.53	0.02
TOTAL CHROMIUM					
Total Chromium, Atomic Absorbtion		191.00	1	222	0.0
Total Chromium, ICP		191.30	9	215	12.0
Total Chromium, Other		191.99	1	225	0.0
Method Group 191.XX PPM			11	217	14.3
ACID SOLUBLE COBALT					
Acid Soluble Cobalt, ICP		202.30	7	2	0.9
Acid Soluble Cobalt, Other		202.99	1	1	0.0
Method Group 202.XX PPM			8	2	1.6
ACID SOLUBLE COPPER					
Acid Soluble Copper, Other		221.99	1	0.9	0.0
Method Group 221.XX PPM			7	0.0	0.9
ACID SOLUBLE IRON AS Fe₂O₃					
Acid Soluble Iron, ICP		241.30	17	0.80	0.03
Acid Soluble Iron, Other		241.99	2	0.79	0.04
Method Group 241.XX PCT			20	0.81	0.03
TOTAL LEAD					
Total Lead, Atomic Absorbtion		251.00	1	2	0.0
Total Lead, ICP		251.30	7	0.8	0.7
Total Lead, Other		251.99	1	0.0	0.0
Method Group 251.XX PPM			9	0.8	1.1
ACID SOLUBLE MANGANESE					
Acid Soluble Manganese, ICP	972.02a	261.30	3	153	5.2
Acid Soluble Manganese, Other		261.99	7	163	6.0

Method Group 261.XX PPM			10	161	9.6
WATER SOLUBLE MANGANESE					
Water Soluble Manganese, Other	271.99		1	26	0
Method Group 271.XX PCT			1	26	0.0
TOTAL MERCURY					
Total Mercury, ICP	281.30		2	0.00	0.00
Total Mercury, Other	281.99		1	0	0.00
Method Group 281.XX PPM			3	0.02	0.02
TOTAL MOLYBDENUM					
Total Molybdenum, ICP	289.30		7	4	0.6
Total Molybdenum, Other	289.99		1	5	0.0
Method Group 289.XX PPM			8	4	0.9
TOTAL NICKEL					
Total Nickel, ICP	291.30		9	14.5	1.5
Total Nickel, icp	291.99		2	6.5	4.8
Method Group 291.XX PPM			11	14.1	1.8
TOTAL SELENIUM					
Total Selenium, ICP	301.30		3		0.0
Method Group 301.XX PPM			3	0.0	0.0
SODIUM AS Na₂O					
Sodium, Atomic Absorbtion	983.04	311.00	1	0.39	0.00
Sodium, Other		311.99	10	0.23	0.02
Method Group 311.XX PCT			11	0.23	0.03
ACID SOLUBLE ZINC					
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	1	462.8	0.0
Acid Soluble Zinc, ICP		321.30	8	437.5	30.1
Acid Soluble Zinc, Other		321.99	2	369.9	58.1
Method Group 321.XX %			11	447.8	42.0
FLUORIDE					
Volumetric	325.10		13	1.40	0.07
Distilled/Electrode	325.99		3	1.51	0.05
Method Group 325.XX PCT			16	1.45	0.10

001.10 Ammoniacal Nitrogen		
Lab	MgO distillation	
31	17.69	-1.340
Std Dev	17.67	-1.000
Median	17.63	0.000
Std Dev	17.58	1.000
113	17.56	1.340

001.99 Ammoniacal Nitrogen		
Lab	Other	
335	18.75	-9.506
275	17.80	-1.549
Std Dev	17.73	-1.000
275	17.71	-0.796
38	17.68	-0.502
23	17.65	-0.293
34	17.63	-0.126
Median	17.62	0.000
23	17.60	0.126
24	17.59	0.251
24	17.55	0.544
Std Dev	17.50	1.000
79	17.45	1.424
79	17.35	2.261
330	15.45	18.132

001.XX Ammoniacal Nitrogen		
Lab	Total Method	
335	18.75	-11.457
275	17.80	-1.867
Std Dev	17.71	-1.000
275	17.71	-0.959
31	17.69	-0.757
38	17.68	-0.606
23	17.65	-0.353
34	17.63	-0.151
Median	17.62	0.000
23	17.60	0.151
24	17.59	0.303
113	17.56	0.515
24	17.55	0.656
Std Dev	17.52	1.000
79	17.45	1.716
79	17.35	2.725

330 15.45 21.854

002.99 Nitrate Nitrogen		
Lab	Other	
335	0.01	0.000
Median	0.01	0.000

002.XX Nitrate Nitrogen		
Lab	Total Method	
335	0.01	0.000
Median	0.01	0.000

009.99 Ammon & Nitrate N		
Lab	Other	
32	17.75	-1.340
Std Dev	17.71	-1.000
Median	17.61	0.000
Std Dev	17.51	1.000
32	17.48	1.340

009.XX Ammon & Nitrate N		
Lab	Total Method	
32	17.75	-1.340
Std Dev	17.71	-1.000
Median	17.61	0.000
Std Dev	17.51	1.000
32	17.48	1.340

010.11 Total Nitrogen		
Lab	Modified Comprehensive	
219	17.82	-0.631
43	17.80	0.000
Median	17.80	0.000
Std Dev	17.76	1.000
43	17.73	2.049

010.60 Total Nitrogen		
Lab	Combustion	
111	18.18	-4.068
Std Dev	17.86	-1.000
79	17.85	-0.861
31	17.84	-0.814
113	17.84	-0.814
103	17.83	-0.670

61	17.79	-0.335
140	17.79	-0.287
77	17.76	0.000
61	17.76	0.000
Median	17.76	0.000
219	17.73	0.239
66	17.73	0.287
79	17.73	0.287
14	17.69	0.670
137	17.67	0.861
Std Dev	17.65	1.000
14	17.65	1.005
47	17.59	1.579
110	17.01	7.179

010.99 Total Nitrogen		
Lab	Other	
23	17.94	-0.390
23	17.82	0.000
Median	17.82	0.000
Std Dev	17.49	1.000
330	17.08	2.290

010.XX Total Nitrogen		
Lab	Total Method	
111	18.18	-4.952
23	17.94	-2.156
79	17.85	-1.049
Std Dev	17.84	-1.000
31	17.84	-0.990
113	17.84	-0.990
103	17.83	-0.816
23	17.82	-0.699
219	17.82	-0.699
43	17.80	-0.466
61	17.79	-0.408
140	17.79	-0.350
77	17.76	0.000
Median	17.76	0.000
61	17.76	0.000
219	17.73	0.291
43	17.73	0.291
66	17.73	0.350
79	17.73	0.350

14	17.69	0.816
Std Dev	17.67	1.000
137	17.67	1.049
14	17.65	1.223
47	17.59	1.923
330	17.08	7.865
110	17.01	8.739

020.20 Total Phosphate		
Lab	Spectrometric	
275	47.44	-2.899
24	47.12	-1.340
275	47.11	-1.291
140	47.09	-1.194
23	47.06	-1.023
Std Dev	47.05	-1.000
24	46.98	-0.658
34	46.98	-0.633
111	46.95	-0.512
31	46.93	-0.402
32	46.91	-0.317
43	46.87	-0.122
23	46.85	0.000
Median	46.85	0.000
14	46.82	0.122
113	46.78	0.293
32	46.78	0.341
43	46.77	0.390
14	46.75	0.463
79	46.66	0.926
Std Dev	46.64	1.000
79	46.51	1.657
61	46.47	1.827
61	46.43	2.047
38	46.24	2.972
335	44.77	10.135

020.40 Total Phosphate		
Lab	Automated	
111	46.96	-1.340
Std Dev	46.88	-1.000
Median	46.66	0.000
Std Dev	46.44	1.000
137	46.37	1.340

020.99 Total Phosphate		
Lab		Other
330	48.08	-1.340
Std Dev	47.70	-1.000
Median	46.60	0.000
Std Dev	45.49	1.000
110	45.11	1.340

020.XX Total Phosphate		
Lab		Total Method
330	48.08	-4.163
275	47.44	-2.006
Std Dev	47.14	-1.000
24	47.12	-0.927
275	47.11	-0.893
140	47.09	-0.826
23	47.06	-0.708
24	46.98	-0.455
34	46.98	-0.438
111	46.96	-0.388
111	46.95	-0.354
31	46.93	-0.278
32	46.91	-0.219
43	46.87	-0.084
23	46.85	0.000
Median	46.85	0.000
14	46.82	0.084
113	46.78	0.203
32	46.78	0.236
43	46.77	0.270
14	46.75	0.320
79	46.66	0.641
Std Dev	46.55	1.000
79	46.51	1.146
61	46.47	1.264
61	46.43	1.416
137	46.37	1.618
38	46.24	2.056
110	45.11	5.849
335	44.77	7.012

030.20 Insoluble Phosphate		
Lab		Spectrometric
43	4.00	-72.914
43	3.15	-57.297
61	0.14	-1.571
Std Dev	0.10	-1.000
113	0.10	-0.924
61	0.09	-0.739
23	0.05	0.000
79	0.05	0.000
Median	0.05	0.000
23	0.04	0.185
79	0.04	0.185
24	0.03	0.462
24	0.01	0.739
140	0.01	0.739

030.30 Insoluble Phosphate		
Lab		Alka. Quimociac
31	0.03	0.000
Median	0.03	0.000

030.40 Insoluble Phosphate		
Lab		Automated
32	0.06	-1.340
Std Dev	0.05	-1.000
34	0.04	0.000
Median	0.04	0.000
Std Dev	0.02	1.000
32	0.02	1.340

030.XX Insoluble Phosphate		
Lab		Total Method
43	4.00	-80.655
43	3.15	-63.401
61	0.14	-1.838
113	0.10	-1.123
Std Dev	0.09	-1.000
61	0.09	-0.919
32	0.06	-0.204
23	0.05	-0.102
79	0.05	-0.102
Median	0.05	0.000
23	0.04	0.102
79	0.04	0.102
34	0.04	0.204

040.20 Indirect Available Phosphate		
Lab		Spectrometric
24	47.11	-1.434
140	47.08	-1.293
Std Dev	47.02	-1.000
23	47.01	-0.940
24	46.95	-0.682
31	46.90	-0.447
32	46.90	-0.423
43	46.83	-0.118
23	46.81	0.000
Median	46.81	0.000
32	46.72	0.400
43	46.72	0.400
113	46.68	0.588
79	46.60	0.964
Std Dev	46.59	1.000
79	46.47	1.599
61	46.38	1.998
61	46.29	2.421

040.99 Indirect Available Phosphate		
Lab		Other
34	46.94	0.000
Median	46.94	0.000

040.XX Indirect Available Phosphate		
Lab		Total Method
24	47.11	-1.387
140	47.08	-1.245
Std Dev	47.03	-1.000
23	47.01	-0.889
24	46.95	-0.628
34	46.94	-0.581
31	46.90	-0.391
32	46.90	-0.368
43	46.83	-0.059
Median	46.82	0.000

041.10 Direct Available Phosphate		
Lab		Gravimetric Quimociac
219	47.51	-1.340
Std Dev	47.45	-1.000
Median	47.27	0.000
Std Dev	47.09	1.000
47	47.03	1.340

041.20 Direct Available Phosphate		
Lab		Spectrometric
38	47.40	-1.340
Std Dev	47.30	-1.000
Median	46.99	0.000
Std Dev	46.68	1.000
47	46.58	1.340

041.40 Direct Available Phosphate		
Lab		Automated
111	46.19	0.000
Median	46.19	0.000

041.50 Direct Available Phosphate		
Lab		ICP
66	46.60	-1.340
Std Dev	46.54	-1.000
Median	46.39	0.000
Std Dev	46.24	1.000
111	46.19	1.340

041.60 Direct Available Phosphate		
Lab		EDTA Extract
77	46.91	-0.567
219	46.90	-0.556
Median	46.41	0.000

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137	45.92	0.556
Std Dev	45.53	1.000
103	45.13	1.458

041.99 Direct Available Phosphate		
Lab	Other	
79	46.99	-1.340
Std Dev	46.70	-1.000
Median	45.85	0.000
Std Dev	44.99	1.000
335	44.71	1.340

041.XX Direct Available Phosphate		
Lab	Total Method	
219	47.51	-1.533
38	47.40	-1.348
Std Dev	47.19	-1.000
47	47.03	-0.729
79	46.99	-0.662
77	46.91	-0.528
219	46.90	-0.511
66	46.60	0.000
Median	46.60	0.000
47	46.58	0.033
111	46.19	0.678
111	46.19	0.678
Std Dev	46.00	1.000
137	45.92	1.131
103	45.13	2.462
335	44.71	3.166

048.20 Water Soluble Phosphate		
Lab	Spectrometric	
140	44.63	-1.197
Std Dev	44.47	-1.000
32	44.33	-0.830
32	44.28	-0.769
31	44.25	-0.736
113	44.14	-0.598
23	44.06	-0.494
330	43.87	-0.263
43	43.68	-0.037
23	43.68	-0.031
24	43.65	0.000

Median	43.65	0.000
24	43.61	0.049
79	43.43	0.269
79	43.38	0.336
14	43.00	0.794
14	43.00	0.794
Std Dev	42.83	1.000
43	42.78	1.068
61	42.72	1.135
61	42.61	1.270
111	42.36	1.581

048.99 Water Soluble Phosphate		
Lab	Other	
34	43.54	-1.340
Std Dev	43.39	-1.000
Median	42.97	0.000
Std Dev	42.54	1.000
111	42.40	1.340

048.XX Water Soluble Phosphate		
Lab	Total Method	
140	44.63	-1.296
Std Dev	44.40	-1.000
32	44.33	-0.915
32	44.28	-0.851
31	44.25	-0.816
113	44.14	-0.673
23	44.06	-0.565
330	43.87	-0.324
43	43.68	-0.089
23	43.68	-0.083
24	43.65	-0.051
24	43.61	0.000
Median	43.61	0.000
34	43.54	0.095
79	43.43	0.229
79	43.38	0.298
14	43.00	0.775
14	43.00	0.775
Std Dev	42.82	1.000
43	42.78	1.061
61	42.72	1.130
61	42.61	1.270

111	42.40	1.537
111	42.36	1.594

050.50 %K ₂ O Soluble Potash		
Lab	ICP(Oxalate)	
23	0.18	-1.083
Std Dev	0.18	-1.000
23	0.17	0.000
Median	0.17	0.000
Std Dev	0.16	1.000
111	0.16	1.597

050.51 %K ₂ O Soluble Potash		
Lab	ICP(Citrate)	
137	0.18	0.000
Median	0.18	0.000

050.99 %K ₂ O Soluble Potash		
Lab	Other	
61	0.18	-1.442
Std Dev	0.17	-1.000
24	0.17	-0.481
24	0.17	-0.481
61	0.17	-0.481
Median	0.17	0.000
31	0.17	0.481
43	0.16	0.822
43	0.16	0.972
Std Dev	0.16	1.000
330	0.11	12.015

050.XX %K ₂ O Soluble Potash		
Lab	Total Method	
23	0.18	-1.630
Std Dev	0.18	-1.000
61	0.18	-0.815
137	0.18	-0.815
23	0.17	0.000
24	0.17	0.000
24	0.17	0.000
61	0.17	0.000
Median	0.17	0.000
31	0.17	0.815
Std Dev	0.16	1.000

43	0.16	1.104
43	0.16	1.232
111	0.16	2.404
330	0.11	10.595

060.00 Free Water		
Lab	Vacuum Oven	
113	1.18	-1.787
34	1.09	-1.095
Std Dev	1.08	-1.000
32	1.08	-0.980
32	1.07	-0.903
31	1.04	-0.730
24	0.99	-0.327
23	0.96	-0.096
Median	0.95	0.000
24	0.94	0.096
23	0.93	0.134
79	0.89	0.480
79	0.89	0.480
Std Dev	0.82	1.000
111	0.65	2.325
43	0.64	2.363
43	0.62	2.555

060.10 Free Water		
Lab	Vacuum Desiccate	
140	0.84	-1.352
Std Dev	0.76	-1.000
61	0.56	0.000
Median	0.56	0.000
Std Dev	0.36	1.000
61	0.29	1.328

060.99 Free Water		
Lab	Other	
47	6.75	-42.228
Std Dev	1.06	-1.000
330	1.02	-0.724
275	0.92	0.000
Median	0.92	0.000
14	0.84	0.616
14	0.82	0.724

060.XX Free Water		
Lab	Total Method	
47	6.75	-36.624
113	1.18	-1.603
34	1.09	-1.037
Std Dev	1.08	-1.000
32	1.08	-0.943
32	1.07	-0.880
31	1.04	-0.739
330	1.02	-0.597
24	0.99	-0.409
23	0.96	-0.220
24	0.94	-0.063
23	0.93	-0.031
Median	0.93	0.000

275	0.92	0.031
79	0.89	0.251
79	0.89	0.251
14	0.84	0.566
140	0.84	0.566
14	0.82	0.660
Std Dev	0.77	1.000
111	0.65	1.760
43	0.64	1.792
43	0.62	1.949
61	0.56	2.295
61	0.29	3.992

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
24	0.52	-1.638
23	0.50	-1.340
24	0.49	-1.141
330	0.49	-1.042
Std Dev	0.48	-1.000
34	0.47	-0.645
61	0.44	-0.149
23	0.44	-0.050
32	0.44	-0.050

Median	0.43	0.000
61	0.43	0.050
32	0.42	0.248
31	0.41	0.362
111	0.41	0.546
14	0.40	0.744
14	0.39	0.844
43	0.39	0.903
43	0.39	0.913

101.99 Acid Soluble Calcium		
Lab	%CaO	Other
219	0.22	0.000
Median	0.22	0.000

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
24	0.52	-1.787
23	0.50	-1.489
24	0.49	-1.290
330	0.49	-1.191
Std Dev	0.48	-1.000
34	0.47	-0.794
61	0.44	-0.298
23	0.44	-0.199
32	0.44	-0.199
61	0.43	-0.099
Median	0.43	0.000

32	0.42	0.099
31	0.41	0.213
111	0.41	0.397
14	0.40	0.596
14	0.39	0.695
43	0.39	0.754
43	0.39	0.764
Std Dev	0.37	1.000
219	0.22	4.030
219	0.21	4.248

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
219	0.72	0.000
Median	0.72	0.000

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
275	1.44	-6.309
Std Dev	1.20	-1.000
34	1.20	-0.949
24	1.20	-0.837
32	1.19	-0.726
61	1.19	-0.726
24	1.19	-0.614
32	1.19	-0.614
23	1.17	-0.168

Median	1.16	0.000
23	1.15	0.168
31	1.15	0.279
14	1.14	0.391
111	1.14	0.391
Std Dev	1.11	1.000
14	1.10	1.284
61	1.09	1.508
43	1.08	1.731
43	1.07	1.954

121.99 Acid Soluble Magnesium		
Lab	%MgO	Other
330	1.19	-1.340
Std Dev	1.13	-1.000
Median	0.96	0.000
Std Dev	0.79	1.000
219	0.73	1.340

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
275	1.44	-4.201
Std Dev	1.22	-1.000
34	1.20	-0.724
24	1.20	-0.652
32	1.19	-0.579
61	1.19	-0.579
24	1.19	-0.507
32	1.19	-0.507
330	1.19	-0.507
23	1.17	-0.217
23	1.15	0.000
Median	1.15	0.000

31	1.15	0.072
14	1.14	0.145
111	1.14	0.145
14	1.10	0.724
61	1.09	0.869
Std Dev	1.08	1.000
43	1.08	1.014
43	1.07	1.159
219	0.73	6.099
219	0.72	6.258

144..01 Sulfate Sulfur (S)		
Lab	Gravimetric	
47	9.80	-2.652
Std Dev	5.03	-1.000
79	2.15	0.000
Median	2.15	0.000
79	2.07	0.028

144.99 Sulfate Sulfur (S)		
Lab	Other	
330	6.81	-95.758
32	2.29	-2.577
34	2.22	-1.031
Std Dev	2.21	-1.000
24	2.20	-0.618
32	2.20	-0.618
23	2.17	-0.103
24	2.17	0.000
Median	2.17	0.000
23	2.15	0.412
14	2.13	0.722
14	2.13	0.722
Std Dev	2.12	1.000
61	2.12	1.031
61	2.06	2.165
31	2.03	2.732

144.XX Sulfate Sulfur (S)		
Lab	Total Method	
47	9.80	-138.860
330	6.81	-84.534
32	2.29	-2.407
34	2.22	-1.045

Std Dev	2.21	-1.000
24	2.20	-0.681
32	2.20	-0.681
23	2.17	-0.227
24	2.17	-0.136
Median	2.16	0.000
79	2.15	0.136
23	2.15	0.227
14	2.13	0.500
14	2.13	0.500
61	2.12	0.772
Std Dev	2.10	1.000
79	2.07	1.590
61	2.06	1.772
31	2.03	2.271

145.99 Total Sulfur (S)		
Lab	Other	
111	2.36	-2.425
Std Dev	2.25	-1.000
43	2.17	0.000
Median	2.17	0.000
43	2.15	0.255

145.XX Total Sulfur (S)		
Lab	Total Method	
111	2.36	-2.425
Std Dev	2.25	-1.000
43	2.17	0.000
Median	2.17	0.000
43	2.15	0.255

151.30 Total Arsenic		
Lab	ICP	
140	3.24	-5.397
Std Dev	1.45	-1.000
24	1.34	-0.716
335	1.10	-0.124
Median	1.05	0.000
43	1.00	0.124
43	0.65	0.988
Std Dev	0.65	1.000
111	0.00	2.594

151.XX Total Arsenic		
Lab	Total Method	
140	3.24	-5.397
Std Dev	1.45	-1.000
24	1.34	-0.716
335	1.10	-0.124
Median	1.05	0.000
43	1.00	0.124
43	0.65	0.988
Std Dev	0.65	1.000
111	0.00	2.594

165.99 Acid Soluble Boron		
Lab	PPM	Other
330	83.93	-1.340
Std Dev	82.82	-1.000
Median	79.59	0.000
Std Dev	76.35	1.000
24	75.25	1.340

165.XX, ppm Acid Soluble Boron		
Lab	PPM	Total Method
330	83.93	-1.340
Std Dev	82.82	-1.000
Median	79.59	0.000
Std Dev	76.35	1.000
24	75.25	1.340

171.99 Water Soluble Boron		
Lab	PPM	Other
330	55.50	0.000
Median	55.50	0.000

171.XX Water Soluble Boron		
Lab	PPM	Total Method
330	55.50	0.000
Median	55.50	0.000

181.00 Total Cadmium		
Lab	Atomic Absorbtion	
330	35.50	0.000
Median	35.50	0.000

181.30 Total Cadmium		
Lab	PPM	ICP
61	38.00	-1.233
31	37.55	-1.051
61	37.50	-1.031
Std Dev	37.42	-1.000
275	37.02	-0.837
275	34.95	0.000
Median	34.95	0.000
43	34.30	0.263
43	34.19	0.309
335	33.58	0.556
Std Dev	32.48	1.000
111	31.00	1.597

181.99 Total Cadmium		
Lab	Other	
24	37.45	0.000
Median	37.45	0.000

181.XX Total Cadmium		
Lab	PPM	Total Method
61	38.00	-1.036
Std Dev	37.91	-1.000
31	37.55	-0.850
61	37.50	-0.829
24	37.45	-0.808
275	37.02	-0.630
330	35.50	0.000
Median	35.50	0.000
275	34.95	0.228
43	34.30	0.497
43	34.19	0.545
335	33.58	0.798
Std Dev	33.09	1.000
111	31.00	1.865

190.00 Aluminum		
Lab	%Al ₂ O ₃	ICP
275	0.60	-3.949
275	0.58	-2.821
14	0.56	-1.411
14	0.56	-1.411
Std Dev	0.55	-1.000

24	0.54	-0.564
24	0.54	-0.282
23	0.53	0.000
23	0.53	0.000
34	0.53	0.000
61	0.53	0.000
Median	0.53	0.000
43	0.53	0.282
43	0.52	0.564
61	0.52	0.564
Std Dev	0.51	1.000
32	0.51	1.411
32	0.50	1.693
111	0.37	9.027

190.99 Aluminum		
Lab	%Al ₂ O ₃	Atomic Absorption
31	0.53	-1.340
Std Dev	0.53	-1.000
Median	0.52	0.000
Std Dev	0.51	1.000
330	0.51	1.340

190.XX Aluminum		
Lab	%Al ₂ O ₃	Total Method
275	0.60	-5.003
275	0.58	-3.573
14	0.56	-1.787
14	0.56	-1.787
Std Dev	0.54	-1.000
24	0.54	-0.715
24	0.54	-0.357
23	0.53	0.000
23	0.53	0.000
34	0.53	0.000
61	0.53	0.000
Median	0.53	0.000
31	0.53	0.179
43	0.53	0.357
43	0.52	0.715
61	0.52	0.715
Std Dev	0.52	1.000
330	0.51	1.429
32	0.51	1.787

32 0.50 2.144
111 0.37 11.435

191.00	Total Chromium	
Lab	PPM	ICP
330	222.00	0.000
Median	222.00	0.000

191.30	Total Chromium	
Lab	PPM	ICP
275	242.00	-2.247
275	235.00	-1.665
Std Dev	227.01	-1.000
31	221.10	-0.508
43	216.50	-0.125
43	215.00	0.000
Median	215.00	0.000
61	210.50	0.375
111	205.00	0.832
61	204.00	0.916
Std Dev	202.99	1.000
335	190.52	2.037

191.99	Total Chromium	
Lab	PPM	Other
24	225.00	0.000
Median	225.00	0.000

191.XX	Total Chromium	
Lab	PPM	Total Method
275	242.00	-2.170
275	235.00	-1.574
Std Dev	228.25	-1.000
24	225.00	-0.723
330	222.00	-0.468
31	221.10	-0.391
43	216.50	0.000
Median	216.50	0.000
43	215.00	0.128
61	210.50	0.510
111	205.00	0.978
Std Dev	204.75	1.000
61	204.00	1.063
335	190.52	2.210

202.30	Acid Soluble Cobalt	
Lab	PPM	ICP
61		

202.99	Acid Soluble Cobalt	
Lab	PPM	Other
24	0.53	0.000
Median	0.53	0.000

202.XX	Acid Soluble Cobalt	
Lab	PPM	Total Method
61	4.00	-1.559
Std Dev	3.28	-1.000
61	3.00	-0.779
43	2.00	0.000
43	2.00	0.000
111	2.00	0.000
Median	2.00	0.000
Std Dev	0.72	1.000
24	0.53	1.142
335	0.52	1.154
330	0.00	1.559

221.00	Acid Soluble Copper	
Lab	PPM	Atomic Absorption
330	4.15	-1.340
Std Dev	3.74	-1.000
Median	2.52	0.000
Std Dev	1.31	1.000
219	0.89	1.340

221.30	Acid Soluble Copper	
Lab	PPM	ICP
43	1.00	-1.340
43	1.00	-1.340
Std Dev	0.75	-1.000
61	0.00	0.000
61	0.00	0.000
111	0.00	0.000
Median	0.00	0.000

221.99	Acid Soluble Copper	
Lab	PPM	Other
24	0.00	0.000

Median 0.00 0.000

221.XX	Acid Soluble Copper	
Lab	PPM	Total Method
330	4.15	-5.561
43	1.00	-1.340
43	1.00	-1.340
Std Dev	0.75	-1.000
24	0.00	0.000
61	0.00	0.000
61	0.00	0.000
111	0.00	0.000
Median	0.00	0.000

241.30	Acid Soluble Iron	
Lab	%Fe ₂ O ₃	ICP
34	0.82	-0.766
23	0.82	-0.766
24	0.82	-0.766
32	0.82	-0.766
111	0.82	-0.766
23	0.82	-0.574
24	0.81	-0.383
32	0.81	-0.383
14	0.80	0.000
43	0.80	0.000
Median	0.80	0.000
14	0.80	0.191
31	0.79	0.479
43	0.79	0.574
275	0.78	0.766
61	0.78	0.957
Std Dev	0.77	1.000
61	0.77	1.340
275	0.76	1.531

241.99	Acid Soluble Iron	
Lab	%Fe ₂ O ₃	Other
330	0.84	-1.340
Std Dev	0.83	-1.000
Median	0.79	0.000
Std Dev	0.75	1.000
219	0.74	1.340

241.XX	Acid Soluble Iron	
Lab	%Fe ₂ O ₃	Total Method
219	0.89	-3.253
330	0.84	-1.294
Std Dev	0.83	-1.000
34	0.82	-0.554
23	0.82	-0.554
24	0.82	-0.554
32	0.82	-0.554
111	0.82	-0.554
23	0.82	-0.370
24	0.81	-0.185
32	0.81	-0.185
Median	0.81	0.000
14	0.80	0.185
43	0.80	0.185
14	0.80	0.370
31	0.79	0.647
43	0.79	0.739
275	0.78	0.924
Std Dev	0.78	1.000
61	0.78	1.109
61	0.77	1.479
275	0.76	1.663
219	0.74	2.403

251.00	Total Lead	
Lab	PPM	Atomic Absorption
330	1.63	0.000
Median	1.63	0.000

251.30	Total Lead	
Lab	PPM	ICP
61	3.00	-3.193
61	1.50	-1.026
Std Dev	1.48	-1.000
275	0.90	-0.159
275	0.79	0.000
Median	0.79	0.000
335	0.30	0.715
43	0.25	0.780
43	0.25	0.780

251.99		Total Lead	
Lab	PPM	Other	Total Method
24	0.02		0.000
Median	0.02		0.000

251.XX		Total Lead	
Lab	PPM	Other	Total Method
61	3.00		-2.369
Std Dev	1.72		-1.000
330	1.63		-0.895
61	1.50		-0.761
275	0.90		-0.118
275	0.79		0.000
Median	0.79		0.000
335	0.30		0.531
43	0.25		0.579
43	0.25		0.579
24	0.02		0.830

261.30		Acid Soluble Manganese	
Lab	PPM	ICP	Total Method
31	163.43		-2.103
Std Dev	157.70		-1.000
330	152.50		0.000
Median	152.50		0.000
111	149.50		0.577

261.99		Acid Soluble Manganese	
Lab	PPM	Other	Total Method
43	165.00		-0.419
43	165.00		-0.419
24	163.00		-0.084
61	162.50		0.000
Median	162.50		0.000
61	158.50		0.670
Std Dev	156.53		1.000
219	153.50		1.508
219	152.25		1.717

261.XX		Acid Soluble Manganese	
Lab	PPM	Other	Total Method
43	165.00		-0.571
43	165.00		-0.571
31	163.43		-0.371

24	163.00		-0.317
61	162.50		-0.254
Median	160.50		0.000
61	158.50		0.254
219	153.50		0.888
Std Dev	152.61		1.000
330	152.50		1.014
219	152.25		1.046
111	149.50		1.395

271.99		Water Soluble Manganese	
Lab	PPM	Other	Total Method
330	26.00		0.000
Median	26.00		0.000

271.XX		Water Soluble Manganese	
Lab	PPM	Other	Total Method
330	26.00		0.000
Median	26.00		0.000

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

281.99		Total Mercury	
Lab	PPM	Other	Total Method
330	0.00		0.000
Median	0.00		0.000

281.XX		Total Mercury	
Lab	PPM	Other	Total Method
335	0.04		-1.012
Std Dev	0.03		-1.000
24	0.02		0.000
Median	0.02		0.000
Std Dev	0.01		1.000
330	0.00		1.668

289.30		Total Molybdenum	
Lab	PPM	ICP	Total Method

31		Total Molybdenum	
Lab	PPM	Other	Total Method
24	4.95		0.000
Median	4.95		0.000

289.XX		Total Molybdenum	
Lab	PPM	Other	Total Method
24	4.95		-1.349
Std Dev	4.70		-1.000
31	4.68		-0.958
43	4.30		-0.426
61	4.00		0.000
111	4.00		0.000
Median	4.00		0.000
61	3.50		0.710
43	3.30		0.994
Std Dev	3.30		1.000
330	0.00		5.679

291.30		Total Nickel	
Lab	PPM	ICP	Total Method
330			0.000

291.99		Total Nickel	
Lab	PPM	Other	Total Method
24	12.95		-1.340
Std Dev	11.31		-1.000
Median	6.48		0.000
Std Dev	1.64		1.000
111	0.00		1.340

291.XX		Total Nickel	
Lab	PPM	Other	Total Method
330	22.50		-5.645
275	16.30		-1.491
Std Dev	15.57		-1.000
61	15.00		-0.620
275	14.95		-0.586
61	14.50		-0.285
31	14.08		0.000
Median	14.08		0.000
43	13.00		0.720
43	13.00		0.720
24	12.95		0.754

Std Dev	12.58		1.000
335	11.64		1.635
111	0.00		9.430

301.30		Total Selenium	
Lab	PPM	ICP	Total Method
335	0.01		-2.680
Std Dev	0.00		-1.000
24	0.00		0.000
111	0.00		0.000
Median	0.00		0.000

301.XX		Total Selenium	
Lab	PPM	ICP	Total Method
335	0.01		-2.680
Std Dev	0.00		-1.000
24	0.00		0.000
111	0.00		0.000
Median	0.00		0.000

311.00		Sodium	
Lab	%Na ₂ O	Atomic Absorbtion	Total Method
330	0.39		0.000
Median	0.39		0.000

311.99		Sodium	
Lab	%Na ₂ O	Other	Total Method
24	0.27		-1.787
Std Dev	0.25		-1.000
24	0.25		-0.893
111	0.25		-0.893
23	0.24		-0.447
23	0.23		0.000
31	0.23		0.000
Median	0.23		0.000
61	0.22		0.223
61	0.21		0.670
43	0.20		0.979
Std Dev	0.20		1.000
43	0.20		1.000

311.XX		Sodium	
Lab	%Na ₂ O	Other	Total Method
330	0.39		-7.147

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24	0.27	-1.787
Std Dev	0.25	-1.000
24	0.25	-0.893
111	0.25	-0.893
23	0.24	-0.447
23	0.23	0.000
31	0.23	0.000
Median	0.23	0.000
61	0.22	0.223
61	0.21	0.670
43	0.20	0.979
Std Dev	0.20	1.000
43	0.20	1.000

Std Dev	482.31	-1.000
219	462.80	-0.435
61	460.00	-0.353
61	456.50	-0.252
111	451.50	-0.107
219	447.80	0.000
Median	447.80	0.000
43	423.50	0.704
43	422.00	0.748
Std Dev	413.29	1.000
24	402.00	1.327
330	292.00	4.514
47	1.00	12.945

23	1.49	-0.558
61	1.48	-0.434
34	1.48	-0.372
32	1.45	0.000
32	1.45	0.000
Median	1.45	0.000
14	1.40	0.558
24	1.39	0.744
79	1.39	0.744
111	1.38	0.806
14	1.38	0.868
24	1.38	0.868
79	1.36	1.115

321.00	Acid Soluble Zinc	
Lab	Atomic Absorption	
219	462.80	0.000
Median	462.80	0.000

325.10	Fluoride	
Lab	%	Electrode
23	1.54	-1.904
31	1.50	-1.375
23	1.49	-1.269
34	1.48	-1.058
32	1.45	-0.635
32	1.45	-0.635
14	1.40	0.000
Median	1.40	0.000
24	1.39	0.212
79	1.39	0.212
111	1.38	0.282
14	1.38	0.353
24	1.38	0.353
79	1.36	0.635

321.30	Acid Soluble Zinc	
Lab	PPM	ICP
31	483.20	-1.517
Std Dev	467.63	-1.000
61	460.00	-0.747
61	456.50	-0.631
111	451.50	-0.465
Median	437.50	0.000
43	423.50	0.465
43	422.00	0.514
Std Dev	407.37	1.000
24	402.00	1.178
47	1.00	14.487

325.99	Fluoride	
Lab	%	Other
330	1.63	-2.218
61	1.51	0.000
Median	1.51	0.000
61	1.48	0.462

321.99	Acid Soluble Zinc	
Lab	Other	
219	447.80	-1.340
Std Dev	428.03	-1.000
Median	369.90	0.000
Std Dev	311.77	1.000
330	292.00	1.340

325.XX	Fluoride	
Lab	%	Total Method
330	1.63	-2.231
23	1.54	-1.115
61	1.51	-0.744
31	1.50	-0.651

321.XX	Acid Soluble Zinc	
Lab	PPM	Total Method
31	483.20	-1.026