

AFPC

Sample

2018-07

Grade

18-46-0

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, MgO distillation	920.03	001.10	1	16.97	0.00
Ammoniacal Nitrogen, Other		001.99	12	16.89	0.66
Method Group 001.XX PCT			13	16.90	0.78
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	3	16.92	0.32
Total Nitrogen, Combustion	993.13	010.60	21	17.74	0.24
Total Nitrogen, Other		010.99	5	17.78	0.16
Method Group 010.XX PCT			29	17.74	0.31
TOTAL PHOSPHATE					
Total Phosphate, Gravimetric Quimociac		020.10	3	45.79	0.11
Total Phosphate, Spectrometric	978.02	020.20	19	45.81	0.24
Total Phosphate, ICP	970.03	020.40	3	46.15	0.22
Total Phosphate, Other	993.13	020.99	1	45.55	0.00
Method Group 020.XX PCT			26	45.80	0.35
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	9	0.10	0.06
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.08	0.00
Insoluble Phosphate, Automated	978.01	030.40	1	0.15	0.00
Insoluble Phosphate, Other		030.99	2	0.13	0.01
Method Group 030.XX PCT			13	0.12	0.06
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	10	45.64	0.10
Indirect Available Phosphate, Other		040.99	3	45.84	0.06
Method Group 040.XX PCT			13	45.74	0.19
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	3	45.77	0.41
Direct Available Phosphate, Spectrometric	960.03D	041.20	2	45.65	0.22
Direct Available Phosphate, ICP		041.50	3	45.60	0.26
Direct Available Phosphate, EDTA Extract	993.01	041.60	7	45.83	0.25
Direct Available Phosphate, Other		041.99	2	46.17	0.06
Method Group 041.XX PCT			17	45.83	0.45
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Spectrometric	970.01	048.20	14	41.03	0.08
Water Soluble Phosphate, Other		048.99	4	41.29	0.28
Method Group 048.XX PCT			18	41.04	0.20
SOLUBLE POTASH AS K₂O					
Soluble Potash, ICP(Oxalate)		050.50	2	0.07	0.00
Soluble Potash, ICP(Citrate)		050.51	1	0.09	0.00
Soluble Potash, Other		050.99	9	0.08	0.00
Method Group 050.XX PCT			12	0.08	0.01
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	14	2.40	0.20
Free Water, Other		060.99	3	2.72	0.12
Method Group 060.XX PCT			17	2.46	0.35
ACID SOLUBLE CALCIUM AS CaO					
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.12	0.00
Acid Soluble Calcium, ICP		101.30	15	0.21	0.03
Acid Soluble Calcium, Other		101.99	1	0.13	0.00
Method Group 101.XX PCT			17	0.21	0.03
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	1.78	0.00
Acid Soluble Magnesium, ICP		121.30	13	1.78	0.07
Acid Soluble Magnesium, Other		121.99	3	1.57	0.07
Method Group 121.XX PCT			17	1.75	0.12

AFPC Check Sample 07-2018 **WATER SOLUBLE MAGNESIUM**

Water Soluble Magnesium, Other		131.99	1	0.17	0.00
Method Group 131.XX PCT			1	0.17	0.00
SULFATE SULFUR (S)					
Sulfur, Gravimetric	980.02(a)	144.01	3	1.32	0.02
Sulfur, Other		144.99	12	1.29	0.04
Method Group 144.XX PCT			15	1.29	0.05
TOTAL SULFUR (S)					
Sulfur, Other		145.99	5	1.30	0.4
Method Group 145.XX PCT			5	1.30	0.5
TOTAL ARSENIC					
Total Arsenic, ICP	980.02(b)	151.02	7	20.0	8.2
Total Arsenic, Other		151.99	4	16.0	1.0
Method Group 151.XX PPM			11	17.9	4.3
ACID SOLUBLE BORON					
Acid Soluble Boron, Other		165.99	2	24	14.4
Method Group 165.XX PPM			2	24	17.5
WATER SOLUBLE BORON					
Water Soluble Boron, Other		171.99	1	33	0.0
Method Group 171.XX PPM			1	33	0.0
TOTAL CADMIUM					
Total Cadmium, Atomic Absorbtion		181.00	1	3	0.0
Total Cadmium, ICP		181.30	8	3.0	1.1
Total Cadmium, Other		181.99	2	1.4	0.8
Method Group 181.XX PPM			11	3.0	1.0
ALUMINUM AS Al₂O₃					
ICP, %			13	1.21	0.03
Water Soluble Chlorine, Other, %		190.99	2	1.09	0.06
Method Group 190.XX PCT			15	1.21	0.04
TOTAL CHROMIUM					
Total Chromium, Atomic Absorbtion		191.00	1	96	0.0
Total Chromium, ICP		191.30	8	98	1.4
Total Chromium, Other		191.99	2	53	31.1
Method Group 191.XX PPM			11	97	2.7
ACID SOLUBLE COBALT					
Acid Soluble Cobalt, ICP		202.30	6	4	1.4
Acid Soluble Cobalt, Other		202.99	2	1	0.5
Method Group 202.XX PPM			8	3	2.2
ACID SOLUBLE COPPER					
Acid Soluble Copper, Other		221.99	1	0.9	0.0
Method Group 221.XX PPM			4	1.0	2.0
ACID SOLUBLE IRON AS Fe₂O₃					
Acid Soluble Iron, ICP		241.30	13	1.82	0.02
Acid Soluble Iron, Other		241.99	3	1.73	0.09
Method Group 241.XX PCT			17	1.82	0.05
TOTAL LEAD					
Total Lead, ICP		251.30	5	1.3	0.4
Total Lead, Other		251.99	1	0.0	0.0
Method Group 251.XX PPM			6	1.1	0.6
ACID SOLUBLE MANGANESE					
Acid Soluble Manganese, ICP	972.02a	261.30	4	240	71.5
Acid Soluble Manganese, Other		261.99	7	264	14.6
Method Group 261.XX PPM			11	260	26.3
WATER SOLUBLE MANGANESE					
Water Soluble Manganese, Other		271.99	1	19	0
Method Group 271.XX PCT			1	19	0.0
TOTAL MERCURY					
Total Mercury, ICP		281.30	1	0.00	0.00
Total Mercury, Other		281.99	1	0	0.00
Method Group 281.XX PPM			2	0.03	0.02

TOTAL MOLYBDENUM					
Total Molybdenum, ICP	289.30		6	9	1.6
Total Molybdenum, Other	289.99		2	4	2.3
Method Group 289.XX PPM			8	8	2.4
TOTAL NICKEL					
Total Nickel, ICP	291.30		8	17.4	1.1
Total Nickel, icp	291.99		2	8.7	4.8
Method Group 291.XX PPM			10	17.2	2.2
TOTAL SELENIUM					
Total Selenium, ICP	301.30		4	0.5	0.9
Method Group 301.XX PPM			4	0.5	1.1
SODIUM AS Na₂O					
Sodium, Atomic Absorbtion	983.04	311.00	1	0.16	0.00
Sodium, Other		311.99	9	0.16	0.02
Method Group 311.XX PCT			10	0.16	0.02
ACID SOLUBLE ZINC					
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	1	41.3	0.0
Acid Soluble Zinc, ICP		321.30	6	64.1	43.0
Acid Soluble Zinc, Other		321.99	5	46.8	463.9
Method Group 321.XX %			12	46.1	52.4
FLUORIDE					
Volumetric	325.10		11	1.86	0.06
Distilled/Electrode	325.99		3	1.89	0.05
Method Group 325.XX PCT			14	1.87	0.07

AFPC Check Sample 07
-2018

001.10 Ammoniacal Nitrogen		
Lab	MgO distillation	
31	16.97	0.000
Median	16.97	0.000

001.99 Ammoniacal Nitrogen		
Lab	Other	
330	18.21	-1.987
335	17.93	-1.563
61	17.77	-1.321
61	17.66	-1.162
Std Dev	17.55	-1.000
113	16.91	-0.026
34	16.90	-0.011
Median	16.89	0.000
113	16.89	0.011
79	16.84	0.079
24	16.81	0.132
24	16.79	0.155
140	16.78	0.178
38	16.76	0.201

001.XX Ammoniacal Nitrogen		
Lab	Total Method	
330	18.21	-2.045
335	17.93	-1.606
61	17.77	-1.356
61	17.66	-1.191
Std Dev	17.54	-1.000
31	16.97	-0.110
113	16.91	-0.016
34	16.90	0.000
Median	16.90	0.000
113	16.89	0.024
79	16.84	0.094
24	16.81	0.149
24	16.79	0.172
140	16.78	0.196
38	16.76	0.219

010.11 Total Nitrogen		
Lab	Modified Comprehensive	
219	17.76	-2.648
Std Dev	17.23	-1.000

43	16.92	0.000
Median	16.92	0.000
43	16.91	0.032

010.60 Total Nitrogen		
Lab	Combustion	
63	17.90	-0.660
80	17.90	-0.660
24	17.85	-0.433
66	17.82	-0.309
219	17.80	-0.247
49	17.80	-0.227
31	17.78	-0.165
79	17.77	-0.124
24	17.76	-0.082
64	17.76	-0.082
29	17.74	0.000
Median	17.74	0.000
137	17.72	0.082
47	17.63	0.474
38	17.60	0.577
77	17.59	0.618
Std Dev	17.50	1.000
140	17.47	1.113
14	17.45	1.196
99	17.44	1.237
14	17.42	1.340
111	17.40	1.402
103	17.25	2.041

010.99 Total Nitrogen		
Lab	Other	
330	18.45	-4.081
Std Dev	17.94	-1.000
23	17.84	-0.365
23	17.78	0.000
Median	17.78	0.000
113	17.62	0.975
Std Dev	17.61	1.000
113	17.36	2.558

010.XX Total Nitrogen		
Lab	Total Method	
330	18.45	-2.738

Std Dev	18.00	-1.000
63	17.90	-0.621
80	17.90	-0.621
24	17.85	-0.408
23	17.84	-0.369
66	17.82	-0.291
219	17.80	-0.233
49	17.80	-0.214
31	17.78	-0.155
23	17.78	-0.136
79	17.77	-0.117
24	17.76	-0.078
64	17.76	-0.078
219	17.76	-0.058
29	17.74	0.000
Median	17.74	0.000
137	17.72	0.078
47	17.63	0.447
113	17.62	0.486
38	17.60	0.544
77	17.59	0.583
Std Dev	17.48	1.000
140	17.47	1.049
14	17.45	1.126
99	17.44	1.165
14	17.42	1.262
111	17.40	1.321
113	17.36	1.495
103	17.25	1.923
43	16.92	3.204
43	16.91	3.243

020.10 Total Phosphate		
Lab	Gravimetric Quimociac	
219	46.09	-2.680
Std Dev	45.90	-1.000
241	45.79	0.000
241	45.79	0.000
Median	45.79	0.000

020.20 Total Phosphate		
Lab	Spectrometric	
61	46.76	-4.041
14	46.60	-3.361

111	46.13	-1.340
32	46.09	-1.191
Std Dev	46.05	-1.000
34	45.99	-0.766
24	45.97	-0.659
32	45.95	-0.596
113	45.86	-0.213
23	45.81	0.000
31	45.81	0.000
Median	45.81	0.000
24	45.75	0.277
43	45.74	0.319
79	45.73	0.362
23	45.68	0.553
43	45.65	0.702
113	45.65	0.702
14	45.59	0.936
Std Dev	45.57	1.000
140	45.53	1.212
99	45.42	1.680

020.40 Total Phosphate		
Lab	Automated	
219	46.28	-0.603
111	46.15	0.000
Median	46.15	0.000
Std Dev	45.92	1.000
137	45.68	2.077

020.99 Total Phosphate		
Lab	Other	
330	45.55	0.000
Median	45.55	0.000

020.XX Total Phosphate		
Lab	Total Method	
61	46.76	-3.341
14	46.60	-2.784
219	46.28	-1.671
111	46.15	-1.201
111	46.13	-1.131
32	46.09	-1.009
219	46.09	-1.009
Std Dev	46.09	-1.000

AFPC Check Sample 07
-2018

34	45.99	-0.661
24	45.97	-0.574
32	45.95	-0.522
113	45.86	-0.209
23	45.81	-0.035
31	45.81	-0.035
Median	45.80	0.000
241	45.79	0.035
241	45.79	0.035
24	45.75	0.191
43	45.74	0.226
79	45.73	0.261
23	45.68	0.418
137	45.68	0.418
43	45.65	0.539
113	45.65	0.539
14	45.59	0.731
330	45.55	0.888
140	45.53	0.957
Std Dev	45.51	1.000
99	45.42	1.340

030.20 Insoluble Phosphate Spectrometric		
Lab		
113	0.25	-2.680
Std Dev	0.15	-1.000
61	0.15	-0.983
24	0.14	-0.804
24	0.12	-0.447
140	0.10	0.000
Median	0.10	0.000
23	0.07	0.447
23	0.07	0.536
79	0.07	0.536
113	0.05	0.893

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

030.40 Insoluble Phosphate Automated		
Lab		
34	0.15	0.000

Median	0.15	0.000
---------------	-------------	--------------

030.99 Insoluble Phosphate		
Lab	Other	
32	0.14	-1.340
Std Dev	0.14	-1.000
Median	0.13	0.000
Std Dev	0.13	1.000
32	0.13	1.340

030.XX Insoluble Phosphate Total Method		
Lab		
113	0.25	-2.393
Std Dev	0.17	-1.000
34	0.15	-0.574
61	0.15	-0.574
24	0.14	-0.383
32	0.14	-0.383
32	0.13	-0.096
24	0.12	0.000
Median	0.12	0.000
140	0.10	0.479
31	0.08	0.766
23	0.07	0.957
Std Dev	0.07	1.000
23	0.07	1.053
79	0.07	1.053
113	0.05	1.436

040.20 Indirect Available Phosphate Spectrometric		
Lab		
61	46.61	-9.810
24	45.83	-1.871
23	45.75	-1.062
31	45.74	-1.011
Std Dev	45.74	-1.000
79	45.66	-0.152
Median	45.64	0.000
24	45.63	0.152
113	45.62	0.253
23	45.61	0.303
113	45.60	0.405
Std Dev	45.54	1.000
140	45.43	2.124

040.99 Indirect Available Phosphate		
Lab	Other	
32	45.97	-2.161
Std Dev	45.90	-1.000
34	45.84	0.000
Median	45.84	0.000
32	45.81	0.519

040.XX Indirect Available Phosphate Total Method		
Lab		
61	46.61	-5.551
32	45.97	-1.436
Std Dev	45.90	-1.000
34	45.84	-0.638
24	45.83	-0.542
32	45.81	-0.447
23	45.75	-0.032
31	45.74	0.000
Median	45.74	0.000
79	45.66	0.542
24	45.63	0.734
113	45.62	0.798
23	45.61	0.830
113	45.60	0.893
Std Dev	45.58	1.000
140	45.43	1.978

041.10 Direct Available Phosphate Gravimetric Quimociac		
Lab		
47	45.84	-0.160
219	45.77	0.000
Median	45.77	0.000
Std Dev	45.36	1.000
107	44.75	2.520

041.20 Direct Available Phosphate Spectrometric		
Lab		
38	45.94	-1.340
Std Dev	45.86	-1.000
Median	45.65	0.000
Std Dev	45.43	1.000
47	45.36	1.340

041.50 Direct Available Phosphate ICP		
Lab		
63	46.27	-2.547
Std Dev	45.86	-1.000
80	45.60	0.000
Median	45.60	0.000
66	45.57	0.133

041.60 Direct Available Phosphate EDTA Extract		
Lab		
49	47.30	-5.864
219	46.14	-1.241
77	46.09	-1.041
Std Dev	46.08	-1.000
137	45.83	0.000
Median	45.83	0.000
64	45.83	0.020
29	45.74	0.379
Std Dev	45.58	1.000
103	43.98	7.404

041.99 Direct Available Phosphate Other		
Lab		
79	46.25	-1.340
Std Dev	46.23	-1.000
Median	46.17	0.000
Std Dev	46.11	1.000
335	46.09	1.340

041.XX Direct Available Phosphate Total Method		
Lab		
49	47.30	-4.006
63	46.27	-1.203
79	46.25	-1.149
Std Dev	46.20	-1.000
219	46.14	-0.848
77	46.09	-0.711
335	46.09	-0.711
38	45.94	-0.287
47	45.84	-0.014
137	45.83	0.000
Median	45.83	0.000
64	45.83	0.014
219	45.77	0.164

AFPC Check Sample 07
-2018

29	45.74	0.259
80	45.60	0.629
66	45.57	0.725
Std Dev	45.46	1.000
47	45.36	1.299
107	44.75	2.967
103	43.98	5.059

048.20 Water Soluble Phosphate Spectrometric		
Lab		
61	41.49	-5.640
140	41.41	-4.643
Std Dev	41.11	-1.000
14	41.08	-0.530
23	41.08	-0.530
23	41.08	-0.530
113	41.04	-0.093
14	41.04	-0.031
Median	41.03	0.000
24	41.03	0.031
24	41.02	0.156
31	41.02	0.156
Std Dev	40.95	1.000
113	40.95	1.028
79	40.84	2.462
330	40.82	2.711
111	40.08	11.873

048.99 Water Soluble Phosphate Other		
Lab		
32	41.36	-0.228
32	41.35	-0.211
Median	41.29	0.000
34	41.23	0.211
Std Dev	41.01	1.000
111	40.19	3.866

048.XX Water Soluble Phosphate Total Method		
Lab		
61	41.49	-2.680
140	41.41	-2.201
32	41.36	-1.901
32	41.35	-1.872
34	41.23	-1.153

Std Dev	41.20	-1.000
14	41.08	-0.225
23	41.08	-0.225
23	41.08	-0.225
113	41.04	-0.015
Median	41.04	0.000
14	41.04	0.015
24	41.03	0.045
24	41.02	0.105
31	41.02	0.105
113	40.95	0.524
Std Dev	40.87	1.000
79	40.84	1.213
330	40.82	1.333
111	40.19	5.076
111	40.08	5.734

050.50 %K ₂ O Soluble Potash ICP(Oxalate)		
Lab		
23	0.07	0.000
23	0.07	0.000
Median	0.07	0.000

050.51 %K ₂ O Soluble Potash ICP(Citrate)		
Lab		
137	0.09	0.000
Median	0.09	0.000

050.99 Soluble Potash Other		
Lab	%K ₂ O	
80	0.10	-5.267
111	0.10	-3.927
24	0.09	-1.247
Std Dev	0.08	-1.000
43	0.08	-0.081
43	0.08	0.000
Median	0.08	0.000
24	0.08	0.093
31	0.08	0.093
61	0.08	0.093
Std Dev	0.08	1.000
330	0.04	10.813

050.XX Soluble Potash Total Method		
Lab	%K ₂ O	
80	0.10	-3.036
111	0.10	-2.271
137	0.09	-1.505
Std Dev	0.09	-1.000
24	0.09	-0.739
43	0.08	-0.073
43	0.08	-0.027
Median	0.08	0.000
24	0.08	0.027
31	0.08	0.027
61	0.08	0.027
Std Dev	0.07	1.000
23	0.07	1.558
23	0.07	1.558
330	0.04	6.152

060.00 Free Water Vacuum Oven		
Lab		
31	2.74	-1.664
24	2.61	-1.003
Std Dev	2.60	-1.000
24	2.57	-0.808
43	2.51	-0.514
111	2.46	-0.294
43	2.46	-0.269
32	2.42	-0.098
Median	2.40	0.000
34	2.38	0.098
32	2.34	0.294
140	2.22	0.881
23	2.22	0.881
Std Dev	2.20	1.000
23	1.94	2.276
79	1.86	2.643
61	1.77	3.108

060.99 Free Water Other		
Lab		
330	2.97	-2.161
Std Dev	2.83	-1.000
14	2.72	0.000
Median	2.72	0.000

14	2.66	0.519
----	------	-------

060.XX Free Water Total Method		
Lab		
330	2.97	-1.775
Std Dev	2.74	-1.000
31	2.74	-0.992
14	2.72	-0.905
14	2.66	-0.696
24	2.61	-0.522
24	2.57	-0.383
43	2.51	-0.174
111	2.46	-0.017
43	2.46	0.000
Median	2.46	0.000
32	2.42	0.122
34	2.38	0.261
32	2.34	0.400
140	2.22	0.818
23	2.22	0.818
Std Dev	2.17	1.000
23	1.94	1.810
79	1.86	2.071
61	1.77	2.402

101.00 Acid Soluble Calcium Atomic Absorption		
Lab	%CaO	
219	0.12	0.000
Median	0.12	0.000

101.30 Acid Soluble Calcium ICP		
Lab	%CaO	
330	0.25	-1.462
Std Dev	0.24	-1.000
32	0.24	-0.914
14	0.23	-0.731
24	0.23	-0.731
32	0.23	-0.548
61	0.22	-0.366
24	0.22	-0.183
23	0.21	0.000
23	0.21	0.000
Median	0.21	0.000
43	0.19	0.611

AFPC Check Sample 07
-2018

43	0.19	0.669
34	0.19	0.731
111	0.19	0.731
31	0.18	0.987
Std Dev	0.18	1.000
14	0.17	1.645

101.99	Acid Soluble Calcium	
Lab	%CaO	Other
219	0.13	0.000
Median	0.13	0.000

101.XX	Acid Soluble Calcium	
Lab	%CaO	Total Method
330	0.25	-1.531
Std Dev	0.24	-1.000
32	0.24	-0.957
14	0.23	-0.766
24	0.23	-0.766
32	0.23	-0.574
61	0.22	-0.383
24	0.22	-0.191
23	0.21	0.000
23	0.21	0.000
Median	0.21	0.000

43	0.19	0.639
43	0.19	0.701
34	0.19	0.766
111	0.19	0.766
Std Dev	0.18	1.000
31	0.18	1.034
14	0.17	1.723
219	0.13	3.120
219	0.12	3.402

121.00	Acid Soluble Magnesium	
Lab	%MgO	Atomic Absorption
219	1.78	0.000
Median	1.78	0.000

121.30	Acid Soluble Magnesium	
Lab	%MgO	ICP
32	1.85	-0.938
32	1.84	-0.804

34	1.82	-0.603
23	1.80	-0.268
23	1.79	-0.134
24	1.78	-0.067
24	1.78	0.000
Median	1.78	0.000
61	1.75	0.335
Std Dev	1.70	1.000
14	1.70	1.005
14	1.70	1.072
31	1.66	1.608
43	1.64	1.876
43	1.63	2.010

121.99	Acid Soluble Magnesium	
Lab	%MgO	Other
111	1.75	-2.392
Std Dev	1.65	-1.000
219	1.57	0.000
Median	1.57	0.000
330	1.55	0.288

121.XX	Acid Soluble Magnesium	
Lab	%MgO	Total Method
32	1.85	-0.979
32	1.84	-0.876
34	1.82	-0.722
23	1.80	-0.464
23	1.79	-0.361
219	1.78	-0.345
24	1.78	-0.309
24	1.78	-0.258
61	1.75	0.000
111	1.75	0.000
Median	1.75	0.000
14	1.70	0.515
14	1.70	0.567
31	1.66	0.979
Std Dev	1.65	1.000
43	1.64	1.185
43	1.63	1.288
219	1.57	1.840
330	1.55	2.062

144.01	Sulfate Sulfur (S)	
Lab		Gravimetric
241	1.34	-0.975
241	1.32	0.000
Median	1.32	0.000
Std Dev	1.29	1.000
79	1.28	1.705

144.99	Sulfate Sulfur (S)	
Lab		Other
330	1.53	-6.362
Std Dev	1.32	-1.000
23	1.32	-0.784
32	1.32	-0.784
34	1.31	-0.654
14	1.30	-0.261
14	1.29	-0.131
Median	1.29	0.000
23	1.28	0.131
32	1.27	0.392
24	1.26	0.654
24	1.26	0.654
Std Dev	1.25	1.000
61	1.20	2.353
31	1.13	4.183

144.XX	Sulfate Sulfur (S)	
Lab		Total Method
330	1.53	-6.387
241	1.34	-1.206
Std Dev	1.33	-1.000
23	1.32	-0.670
32	1.32	-0.670
241	1.32	-0.670
34	1.31	-0.536
14	1.30	-0.134
14	1.29	0.000
Median	1.29	0.000
23	1.28	0.268
79	1.28	0.268
32	1.27	0.536
24	1.26	0.804
24	1.26	0.804
Std Dev	1.25	1.000

61	1.20	2.546
31	1.13	4.422

145.99	Total Sulfur (S)	
Lab		Other
111	1.33	-0.066
43	1.31	-0.027
43	1.30	0.000
Median	1.30	0.000
Std Dev	0.92	1.000
24	0.81	1.313
24	0.68	1.658

145.XX	Total Sulfur (S)	
Lab		Total Method
111	1.33	-0.066
43	1.31	-0.027
43	1.30	0.000
Median	1.30	0.000
Std Dev	0.92	1.000
24	0.81	1.313
24	0.68	1.658

151.30	Total Arsenic	
Lab		ICP
43	22.80	-0.341
43	22.70	-0.328
64	20.76	-0.092
330	20.00	0.000
Median	20.00	0.000
140	17.92	0.253
Std Dev	11.78	1.000
111	3.50	2.007
24	1.59	2.240

151.99	Total Arsenic	
Lab		Other
335	19.20	-3.240
Std Dev	17.00	-1.000
31	16.30	-0.281
Median	16.03	0.000
113	15.75	0.281
113	15.60	0.434

AFPC Check Sample 07
-2018

151.XX		Total Arsenic	
Lab		Total Method	
43	22.80	-1.391	
43	22.70	-1.362	
Std Dev	21.43	-1.000	
64	20.76	-0.808	
330	20.00	-0.593	
335	19.20	-0.363	
140	17.92	0.000	
Median	17.92	0.000	
31	16.30	0.462	
113	15.75	0.618	
113	15.60	0.661	
Std Dev	14.41	1.000	
111	3.50	4.109	
24	1.59	4.655	

165.99		Acid Soluble Boron	
Lab	PPM	Other	
330	43.75	-1.340	
Std Dev	38.86	-1.000	
Median	24.48	0.000	
Std Dev	10.10	1.000	
24	5.21	1.340	

65.XX, ppm		Acid Soluble Boron	
Lab	PPM	Total Method	
330	43.75	-1.340	
Std Dev	38.86	-1.000	
Median	24.48	0.000	
Std Dev	10.10	1.000	
24	5.21	1.340	

171.99		Water Soluble Boron	
Lab	PPM	Other	
330	33.05	0.000	
Median	33.05	0.000	

171.XX		Water Soluble Boron	
Lab	PPM	Total Method	
330	33.05	0.000	
Median	33.05	0.000	

181.00		Total Cadmium	
Lab		Atomic Absorbion	
330	3.01	0.000	
Median	3.01	0.000	

181.30		Total Cadmium	
Lab	PPM	ICP	
43	4.18	-1.091	
43	4.15	-1.063	
Std Dev	4.08	-1.000	
64	3.57	-0.525	
335	3.01	-0.001	
Median	3.00	0.000	
113	3.00	0.001	
113	2.36	0.596	
111	2.00	0.931	
Std Dev	1.93	1.000	
61	1.05	1.812	

181.99		Total Cadmium	
Lab		Other	
31	2.45	-1.340	
Std Dev	2.19	-1.000	
Median	1.41	0.000	
Std Dev	0.63	1.000	
24	0.37	1.340	

181.XX		Total Cadmium	
Lab	PPM	Total Method	
43	4.18	-1.422	
43	4.15	-1.386	
Std Dev	3.83	-1.000	
64	3.57	-0.686	
330	3.01	-0.010	
335	3.01	-0.004	
113	3.00	0.000	
Median	3.00	0.000	
31	2.45	0.667	
113	2.36	0.775	
Std Dev	2.17	1.000	
111	2.00	1.210	
61	1.05	2.357	
24	0.37	3.180	

190.00		Aluminum	
Lab	%Al ₂ O ₃	ICP	
14	1.26	-1.723	
14	1.25	-1.531	
Std Dev	1.24	-1.000	
24	1.24	-0.957	
23	1.23	-0.574	
34	1.22	-0.383	
32	1.22	-0.191	
23	1.21	0.000	
24	1.21	0.000	
Median	1.21	0.000	
32	1.19	0.766	
43	1.19	0.766	
43	1.19	0.766	
Std Dev	1.18	1.000	
61	1.17	1.531	
111	0.84	14.357	

190.99		Aluminum	
Lab	%Al ₂ O ₃	Atomic Absorption	
31	1.17	-1.340	
Std Dev	1.15	-1.000	
Median	1.09	0.000	
Std Dev	1.03	1.000	
330	1.02	1.340	

190.XX		Aluminum	
Lab	%Al ₂ O ₃	Total Method	
14	1.26	-1.419	
14	1.25	-1.261	
Std Dev	1.24	-1.000	
24	1.24	-0.788	
23	1.23	-0.473	
34	1.22	-0.315	
32	1.22	-0.158	
23	1.21	0.000	
24	1.21	0.000	
Median	1.21	0.000	
32	1.19	0.631	
43	1.19	0.631	
43	1.19	0.631	
Std Dev	1.18	1.000	
31	1.17	1.261	

61	1.17	1.261
330	1.02	6.148
111	0.84	11.824

191.00		Total Chromium	
Lab		Atomic Absorbion	
330	96.00	0.000	
Median	96.00	0.000	

191.30		Total Chromium	
Lab		ICP	
43	98.50	-0.734	
64	98.23	-0.532	
111	98.00	-0.367	
43	97.50	0.000	
61	97.50	0.000	
Median	97.50	0.000	
113	96.63	0.639	
Std Dev	96.14	1.000	
113	95.04	1.810	
335	86.88	7.798	

191.99		Total Chromium	
Lab	PPM	Other	
31	94.50	-1.340	
Std Dev	83.91	-1.000	
Median	52.78	0.000	
Std Dev	21.64	1.000	
24	11.05	1.340	

191.XX		Total Chromium	
Lab	PPM	Total Method	
43	98.50	-0.840	
64	98.23	-0.717	
111	98.00	-0.616	
43	97.50	-0.391	
61	97.50	-0.391	
113	96.63	0.000	
Median	96.63	0.000	
330	96.00	0.283	
113	95.04	0.717	
31	94.50	0.957	
Std Dev	94.40	1.000	
335	86.88	4.381	

AFPC Check Sample 07
-2018

24	11.05	38.450
202.30 Acid Soluble Cobalt		
Lab	PPM	ICP
64		
202.99 Acid Soluble Cobalt		
Lab		Other
31	1.53	-1.340
Std Dev	1.38	-1.000
Median	0.92	0.000
Std Dev	0.47	1.000
24	0.32	1.340
202.XX Acid Soluble Cobalt		
Lab	PPM	Total Method
64	5.21	-1.109
Std Dev	5.02	-1.000
43	5.00	-0.990
43	5.00	-0.990
330	3.50	-0.141
Median	3.25	0.000
61	3.00	0.141
111	3.00	0.141
31	1.53	0.974
Std Dev	1.48	1.000
24	0.32	1.660
221.00 Acid Soluble Copper		
Lab		Atomic Absorption
219	1.78	0.000
Median	1.78	0.000
221.30 Acid Soluble Copper		
Lab	PPM	ICP
61	<0.4	0.000
111	9.00	-2.680
Std Dev	3.99	-1.000
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000
221.99 Acid Soluble Copper		
Lab		Other
24	0.15	0.000

Median	0.15	0.000
221.XX Acid Soluble Copper		
Lab	PPM	Total Method
61	<0.4	0.000
111	9.00	-4.843
Std Dev	2.65	-1.000
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000
24	0.15	0.517
241.30 Acid Soluble Iron		
Lab	%Fe ₂ O ₃	ICP
111	1.94	-5.360
23	1.87	-2.010
32	1.86	-1.563
Std Dev	1.84	-1.000
23	1.84	-0.893
43	1.83	-0.447
32	1.83	-0.223
24	1.82	0.000
24	1.82	0.000
34	1.82	0.000
Median	1.82	0.000
43	1.81	0.447
Std Dev	1.80	1.000
14	1.77	2.233
14	1.76	2.680
61	1.69	5.807
241.99 Acid Soluble Iron		
Lab	%Fe ₂ O ₃	Other
219	1.82	-1.056
Std Dev	1.81	-1.000
31	1.73	0.000
Median	1.73	0.000
Std Dev	1.64	1.000
330	1.59	1.624
241.XX Acid Soluble Iron		
Lab	%Fe ₂ O ₃	Total Method
111	1.94	-2.680
23	1.87	-1.005

Std Dev	1.86	-1.000
32	1.86	-0.782
23	1.84	-0.447
43	1.83	-0.223
32	1.83	-0.112
24	1.82	0.000
24	1.82	0.000
34	1.82	0.000
Median	1.82	0.000
219	1.82	0.089
43	1.81	0.223
219	1.78	0.960
Std Dev	1.78	1.000
14	1.77	1.117
14	1.76	1.340
31	1.73	2.122
61	1.69	2.903
330	1.59	5.248
251.30 Total Lead		
Lab	PPM	ICP
61	<1.8	0.000
113	1.73	-0.950
43	1.50	-0.447
43	1.30	0.000
Median	1.30	0.000
335	0.90	0.893
Std Dev	0.85	1.000
113	0.81	1.106
251.99 Total Lead		
Lab		Other
24	0.03	0.000
Median	0.03	0.000
251.XX Total Lead		
Lab	PPM	Total Method
61	<1.8	0.000
113	1.73	-1.349
Std Dev	1.56	-1.000
43	1.50	-0.863
43	1.30	-0.431
Median	1.10	0.000
335	0.90	0.431

113	0.81	0.636
Std Dev	0.64	1.000
24	0.03	2.310
261.30 Acid Soluble Manganese		
Lab		ICP
113	263.00	-0.323
113	260.40	-0.286
Median	239.95	0.000
330	219.50	0.286
Std Dev	168.49	1.000
111	2.70	3.320
261.99 Acid Soluble Manganese		
Lab	PPM	Other
43	286.50	-1.556
43	284.50	-1.419
Std Dev	278.39	-1.000
31	269.95	-0.422
219	263.80	0.000
Median	263.80	0.000
61	259.00	0.329
219	256.35	0.511
Std Dev	249.21	1.000
24	28.35	16.138
261.XX Acid Soluble Manganese		
Lab	PPM	Total Method
43	286.50	-1.208
43	284.50	-1.116
Std Dev	282.00	-1.000
31	269.95	-0.442
219	263.80	-0.157
113	263.00	-0.120
113	260.40	0.000
Median	260.40	0.000
61	259.00	0.065
219	256.35	0.187
Std Dev	238.80	1.000
330	219.50	1.893
24	28.35	10.741
111	2.70	11.928

AFPC Check Sample 07
-2018

271.99 Water Soluble Manganese			
Lab	Other		
330	18.50		0.000
Median	18.50		0.000

271.XX Water Soluble Manganese			
Lab	PPM	Total Method	
330	18.50		0.000
Median	18.50		0.000

281.30 Total Mercury			
Lab	PPM	ICP	
24	<0.001		0.000
335	0.01		0.000
Median	0.01		0.000

281.99 Total Mercury			
Lab	PPM	Other	
330	0.06		0.000
Median	0.06		0.000

281.XX Total Mercury			
Lab	PPM	Total Method	
24	<0.001		0.000
330	0.06		-1.340
Std Dev	0.05		-1.000
Median	0.03		0.000
Std Dev	0.02		1.000
335	0.01		1.340

289.30 Total Molybdenum			
Lab	PPM	ICP	
64			

289.99 Total Molybdenum			
Lab	PPM	Other	
31	7.55		-1.340
Std Dev	6.77		-1.000
Median	4.46		0.000
Std Dev	2.15		1.000
24	1.37		1.340

289.XX Total Molybdenum			
Lab	PPM	Total Method	
64	10.36		-1.202

43	10.15		-1.098
43	10.00		-1.021
Std Dev	9.96		-1.000
111	8.00		0.000
330	8.00		0.000
Median	8.00		0.000
31	7.55		0.230
61	7.00		0.510
Std Dev	6.04		1.000
24	1.37		3.387

291.30 Total Nickel			
Lab	ICP		
43			

291.99 Total Nickel			
Lab	PPM	Other	
31	15.15		-1.340
Std Dev	13.51		-1.000
Median	8.67		0.000
Std Dev	3.84		1.000
24	2.20		1.340

291.XX Total Nickel			
Lab	PPM	Total Method	
43	19.00		-0.984
43	19.00		-0.984
64	18.10		-0.483
113	17.58		-0.191
113	17.27		-0.018
Median	17.23		0.000
330	17.20		0.018
61	16.00		0.686
Std Dev	15.44		1.000
335	15.42		1.012
31	15.15		1.159
24	2.20		8.370

301.30 Total Selenium			
Lab	PPM	ICP	
330	1.90		-1.531
Std Dev	1.43		-1.000
140	1.02		-0.538
Median	0.54		0.000
24	0.07		0.538

335	0.01		0.602
-----	------	--	-------

301.XX Total Selenium			
Lab	PPM	Total Method	
330	1.90		-1.531
Std Dev	1.43		-1.000
140	1.02		-0.538
Median	0.54		0.000
24	0.07		0.538
335	0.01		0.602

311.00 Sodium			
Lab	%Na ₂ O	Atomic Absorbtion	
330	0.16		0.000
Median	0.16		0.000

311.99 Sodium			
Lab	%Na ₂ O	Other	
31	0.18		-1.072
Std Dev	0.17		-1.000
111	0.17		-0.804
23	0.17		-0.536
23	0.17		-0.536
24	0.16		0.000
Median	0.16		0.000
24	0.15		0.268
61	0.14		0.804
Std Dev	0.14		1.000
43	0.13		1.187
43	0.13		1.242

311.XX Sodium			
Lab	%Na ₂ O	Total Method	
31	0.18		-1.042
Std Dev	0.17		-1.000
111	0.17		-0.744
23	0.17		-0.447
23	0.17		-0.447
330	0.16		-0.149
Median	0.16		0.000
24	0.16		0.149
24	0.15		0.447
Std Dev	0.14		1.000
61	0.14		1.042

43	0.13		1.468
43	0.13		1.528

321.00 Acid Soluble Zinc			
Lab	Atomic Absorption		
219	41.33		0.000
Median	41.33		0.000

321.30 Acid Soluble Zinc			
Lab	PPM	ICP	
113	94.38		-0.703
111	93.00		-0.671
113	92.24		-0.654
Median	64.12		0.000
61	36.00		0.654
64	34.90		0.679
Std Dev	21.10		1.000
24	4.16		1.394

321.99 Acid Soluble Zinc			
Lab	Other		
43	669.50		-1.342
43	667.00		-1.337
Std Dev	510.69		-1.000
31	46.80		0.000
Median	46.80		0.000
219	45.39		0.003
330	31.00		0.034

321.XX Acid Soluble Zinc			
Lab	PPM	Total Method	
43	669.50		-14.498
43	667.00		-14.440
113	94.38		-1.123
111	93.00		-1.091
113	92.24		-1.073
Std Dev	89.09		-1.000
31	46.80		-0.016
Median	46.09		0.000
219	45.39		0.016
219	41.33		0.111
61	36.00		0.235
64	34.90		0.260
330	31.00		0.351

AFPC Check Sample 07
-2018

24 4.16 0.975

325.10		Fluoride
Lab	%	Electrode
32	1.99	-2.233
79	1.96	-1.697
32	1.94	-1.340
24	1.89	-0.447
34	1.87	-0.179
24	1.86	0.000
Median	1.86	0.000
14	1.85	0.179
14	1.84	0.357
23	1.83	0.536
23	1.83	0.625
111	1.72	2.591

325.99		Fluoride
Lab	%	Other
330	1.92	-0.574
31	1.89	0.000
Median	1.89	0.000
61	1.78	2.106

325.XX		Fluoride
Lab	%	Total Method
32	1.99	-2.010
79	1.96	-1.508
32	1.94	-1.173
330	1.92	-0.921
31	1.89	-0.419
24	1.89	-0.335
34	1.87	-0.084
Median	1.87	0.000
24	1.86	0.084
14	1.85	0.251
14	1.84	0.419
23	1.83	0.586
23	1.83	0.670
61	1.78	1.424
111	1.72	2.513