

AFPC

2014-09

Grade

18-46-0

Sample

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
AMMONIACAL NITROGEN					
Ammoniacal Nitrogen, MgO distillation	920.03	001.10	1	17.08	0.00
Ammoniacal Nitrogen, Other		001.99	8	17.36	0.09
Method Group 001.XX PCT			9	17.35	0.19
TOTAL NITROGEN					
Total Nitrogen, Modified Comprehensive	978.02	010.11	3	16.93	0.21
Total Nitrogen, Salicylic	955.04d	010.12	1	17.06	0.00
Total Nitrogen, Combustion	993.13	010.60	21	17.44	0.16
Total Nitrogen, Other		010.99	6	17.35	0.08
Method Group 010.XX PCT			31	17.37	0.19
TOTAL PHOSPHATE					
Total Phosphate, Gravimetric Quimociac		020.10	2	47.56	0.47
Total Phosphate, Spectrometric	978.02	020.20	19	46.86	0.19
Total Phosphate, Alka. Quimociac	955.04d	020.30	1	47.17	0.00
Total Phosphate, ICP	970.03	020.40	3	46.78	0.30
Method Group 020.XX PCT			25	46.90	0.30
INSOLUBLE PHOSPHATE					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	9	0.03	0.01
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.06	0.00
Insoluble Phosphate, Automated	978.01	030.40	2	0.07	0.01
Method Group 030.XX PCT			12	0.04	0.03
INDIRECT AVAILABLE PHOSPHATE					
Indirect Available Phosphate, Spectrometric	960.02	040.20	11	46.83	0.22
Indirect Available Phosphate, Automated	960.02	040.40	1	46.80	0.00
Indirect Available Phosphate, Other		040.99	1	46.90	0.00
Method Group 040.XX PCT			13	46.83	0.15
DIRECT AVAILABLE PHOSPHATE					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	3	46.57	0.21
Direct Available Phosphate, Spectrometric	960.03D	041.20	2	46.76	0.01
Direct Available Phosphate, Automated	978.01	041.40	2	46.70	0.06
Direct Available Phosphate, ICP		041.50	4	46.44	0.57
Direct Available Phosphate, EDTA Extract	993.01	041.60	3	46.85	0.50
Method Group 041.XX PCT			14	46.69	0.24
WATER SOLUBLE PHOSPHATE					
Water Soluble Phosphate, Spectrometric	970.01	048.20	13	43.16	0.37
Water Soluble Phosphate, Alka. Quimociac	964.04	048.30	1	42.75	0.00
Water Soluble Phosphate, Other		048.99	2	42.62	0.34
Method Group 048.XX PCT			16	43.12	0.61
SOLUBLE POTASH AS K₂O					
Soluble Potash, ICP(Oxalate)		050.50	5	0.19	0.01
Soluble Potash, Flame Photometric(Citrate)	983.02B(b)	050.61	1	0.18	0.00
Soluble Potash, Other		050.99	8	0.19	0.01
Method Group 050.XX PCT			14	0.19	0.01
FREE WATER					
Free Water, Vacuum Oven	965.08B	060.00	13	1.55	0.09
Free Water, Vacuum Desiccate	965.08A	060.10	2	3.68	0.15
Free Water, Other		060.99	2	1.57	0.00
Method Group 060.XX PCT			17	1.57	0.16
ACID SOLUBLE CALCIUM AS CaO					
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.62	0.00
Acid Soluble Calcium, ICP		101.30	15	0.61	0.01
Acid Soluble Calcium, Other		101.99	1	0.62	0.00
Method Group 101.XX PCT			17	0.61	0.02
ACID SOLUBLE MAGNESIUM AS MgO					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	1.82	0.00
Acid Soluble Magnesium, ICP		121.30	15	1.82	0.09
Acid Soluble Magnesium, Other		121.99	1	1.69	0.00

Method Group 121.XX PCT			17	1.82	0.12
SULFATE SULFUR (S)					
Sulfur, Gravimetric	980.02(a)	144.01	1	2.10	0.00
Sulfur, Spectrometric		144.70	2	2.08	0.00
Sulfur, Other		144.99	11	2.11	0.11
Method Group 144.XX PCT			14	2.09	0.08
TOTAL SULFUR (S)					
Sulfur, Other		145.99	4	2.08	0.01
Method Group 145.XX PCT			4	2.08	0.01
TOTAL ARSENIC					
Total Arsenic, ICP	980.02(b)	151.02	9	2	0.8
Method Group 151.XX PPM			9	2	1.0
ACID SOLUBLE BORON					
Acid Soluble Boron, Other		165.99	1	96	0.0
Method Group 165.XX PPM			1	96	0.0
TOTAL CADMIUM					
Total Cadmium, ICP		181.30	9	29	2.4
Total Cadmium, Other		181.99	1	29	0.0
Method Group 181.XX PPM			10	29	2.7
ALUMINUM AS Al₂O₃					
ICP, %			14	0.54	0.02
Water Soluble Chlorine, Other, %		190.99	1	0.55	0.00
Method Group 190.XX PCT			15	0.54	0.02
TOTAL CHROMIUM					
Total Chromium, ICP		191.30	9	252	10.8
Total Chromium, Other		191.99	1	261	0.0
Method Group 191.XX PPM			10	254	14.8
ACID SOLUBLE COBALT					
Acid Soluble Cobalt, ICP		202.30	7	2	0.2
Acid Soluble Cobalt, Other		202.99	1	1	0.0
Method Group 202.XX PPM			8	2	0.5
ACID SOLUBLE COPPER					
Acid Soluble Copper, ICP		221.30	2	0.9	0.3
Acid Soluble Copper, Other		221.99	1	0.0	0.0
Method Group 221.XX PPM			3	0.5	0.5
ACID SOLUBLE IRON AS Fe₂O₃					
Acid Soluble Iron, ICP		241.30	15	0.92	0.02
Acid Soluble Iron, Other		241.99	2	0.90	0.00
Method Group 241.XX PCT			17	0.91	0.03
TOTAL LEAD					
Total Lead, ICP		251.30	9	1	0.9
Total Lead, Other		251.99	1	0.1	0.0
Method Group 251.XX PPM			10	1	1.0
ACID SOLUBLE MANGANESE					
Acid Soluble Manganese, Atomic Absorption	972.02b	261.11	1	41	0.0
Acid Soluble Manganese, ICP	972.02a	261.30	5	47	1.0
Acid Soluble Manganese, Other		261.99	6	45	2.5
Method Group 261.XX PPM			12	47	3.7
TOTAL MERCURY					
Total Mercury, ICP		281.30	1	0.00	0.00
Method Group 281.XX PPM			1	0.06	0.00
TOTAL MOLYBDENUM					
Total Molybdenum, ICP		289.30	7	4	0.6
Total Molybdenum, Other		289.99	1	6	0.0
Method Group 289.XX PPM			8	5	1.1
TOTAL NICKEL					
Total Nickel, ICP		291.30	8	23	1.8
Method Group 291.XX PPM			8	23	2.2
TOTAL SELENIUM					
Total Selenium, ICP		301.30	1	0.2	0.0
Method Group 301.XX PPM			1	0.2	0.0
SODIUM AS Na₂O					

Sodium, Other		311.99	13	0.32	0.03
Method Group 311.XX PCT			13	0.32	0.03
ACID SOLUBLE ZINC					
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	1	409.0	0.0
Acid Soluble Zinc, ICP		321.30	8	415.5	18.3
Acid Soluble Zinc, Other		321.99	3	384.0	6.8
Method Group 321.XX PPM			12	409.0	22.8
FLUORIDE					
Volumetric		325.10	12	1.15	0.03
Distilled/Electrode		325.99	2	1.18	0.02
Method Group 325.XX PCT			14	1.15	0.03

001.10 Ammoniacal Nitrogen		
Lab	MgO distillation	
310	17.08	0.000
Median	17.08	0.000

001.99 Ammoniacal Nitrogen		
Lab	Other	
275	17.60	-2.600
79	17.46	-1.099
Std Dev	17.45	-1.000
275	17.42	-0.670
34	17.37	-0.134
Median	17.36	0.000
24	17.35	0.134
24	17.34	0.241
Std Dev	17.26	1.000
61	17.22	1.528
61	17.20	1.688

001.XX Ammoniacal Nitrogen		
Lab	Total Method	
275	17.60	-1.667
Std Dev	17.50	-1.000
79	17.46	-0.752
275	17.42	-0.490
34	17.37	-0.163
24	17.35	0.000
Median	17.35	0.000
24	17.34	0.065
61	17.22	0.850
61	17.20	0.948
Std Dev	17.19	1.000
310	17.08	1.732

010.11 Total Nitrogen		
Lab	Modified Comprehensive	
219	17.46	-2.492
Std Dev	17.14	-1.000
43	16.93	0.000
Median	16.93	0.000
43	16.89	0.188

010.12 Total Nitrogen		
Lab	Salicylic	

107	17.06	0.000
Median	17.06	0.000

010.60 Total Nitrogen		
Lab	Combustion	
14	18.28	-5.328
14	18.22	-4.945
63	17.78	-2.170
315	17.70	-1.659
24	17.61	-1.053
Std Dev	17.60	-1.000
47	17.54	-0.638
29	17.52	-0.510
24	17.49	-0.319
31	17.49	-0.287
79	17.48	-0.223
66	17.44	0.000
Median	17.44	0.000
219	17.38	0.383
80	17.35	0.574
61	17.35	0.606
39	17.34	0.670
9	17.33	0.702
49	17.30	0.925
Std Dev	17.28	1.000
99	17.28	1.053
77	17.11	2.106
103	17.07	2.361
111	16.81	4.020

010.99 Total Nitrogen		
Lab	Other	
275	17.60	-3.004
34	17.44	-1.119
Std Dev	17.43	-1.000
275	17.37	-0.295
Median	17.35	0.000
23	17.32	0.295
40	17.31	0.471
23	17.30	0.589

010.XX Total Nitrogen		
Lab	Total Method	
14	18.28	-5.775

14	18.22	-5.392
63	17.78	-2.616
315	17.70	-2.106
24	17.61	-1.500
275	17.60	-1.468
47	17.54	-1.085
Std Dev	17.53	-1.000
29	17.52	-0.957
24	17.49	-0.766
31	17.49	-0.734
79	17.48	-0.670
219	17.46	-0.574
34	17.44	-0.447
66	17.44	-0.447
219	17.38	-0.064
275	17.37	0.000
Median	17.37	0.000
80	17.35	0.128
61	17.35	0.160
39	17.34	0.223
9	17.33	0.255
23	17.32	0.319
40	17.31	0.415
23	17.30	0.479
49	17.30	0.479
99	17.28	0.606
Std Dev	17.21	1.000
77	17.11	1.659
103	17.07	1.914
107	17.06	2.010
43	16.93	2.808
43	16.89	3.063
111	16.81	3.573

020.10 Total Phosphate		
Lab	Gravimetric Quimociac	
40	48.19	-1.340
Std Dev	48.03	-1.000
Median	47.56	0.000
Std Dev	47.08	1.000
219	46.92	1.340

020.20 Total Phosphate		
Lab	Spectrometric	

24	47.42	-2.945
24	47.41	-2.919
9	47.23	-1.964
99	47.11	-1.327
310	47.10	-1.274
Std Dev	47.05	-1.000
34	46.96	-0.531
315	46.95	-0.478
61	46.94	-0.398
31	46.90	-0.212
23	46.86	0.000
275	46.86	0.000
Median	46.86	0.000
275	46.84	0.106
23	46.79	0.398
43	46.78	0.425
14	46.78	0.451
14	46.76	0.531
Std Dev	46.67	1.000
61	46.59	1.433
43	46.58	1.512
79	46.53	1.751

020.30 Total Phosphate		
Lab	Alka. Quimociac	
111	47.17	0.000
Median	47.17	0.000

020.40 Total Phosphate		
Lab	Automated	
9	47.20	-1.416
Std Dev	47.08	-1.000
219	46.78	0.000
Median	46.78	0.000
Std Dev	46.48	1.000
111	46.41	1.264

020.XX Total Phosphate		
Lab	Total Method	
40	48.19	-5.238
24	47.42	-2.091
24	47.41	-2.071
9	47.23	-1.340
9	47.20	-1.218

111	47.17	-1.076
Std Dev	47.15	-1.000
99	47.11	-0.853
310	47.10	-0.812
34	46.96	-0.244
315	46.95	-0.203
61	46.94	-0.142
219	46.92	-0.081
31	46.90	0.000
Median	46.90	0.000
23	46.86	0.162
275	46.86	0.162
275	46.84	0.244
23	46.79	0.467
43	46.78	0.487
219	46.78	0.487
14	46.78	0.508
14	46.76	0.568
Std Dev	46.65	1.000
61	46.59	1.259
43	46.58	1.320
79	46.53	1.502
111	46.41	2.010

030.20 Insoluble Phosphate		
Lab		Spectrometric
61	0.18	-9.715
61	0.11	-5.025
14	0.05	-1.005
Std Dev	0.04	-1.000
14	0.04	-0.670
24	0.03	0.000
79	0.03	0.000
Median	0.03	0.000
23	0.03	0.335
23	0.03	0.335
24	0.03	0.335

030.30 Insoluble Phosphate		
Lab		Alka. Quimociac
31	0.06	0.000
Median	0.06	0.000

030.40 Insoluble Phosphate		
Lab		Automated
34	0.08	-1.340
Std Dev	0.08	-1.000
Median	0.07	0.000
Std Dev	0.06	1.000
9	0.06	1.340

030.XX Insoluble Phosphate		
Lab		Total Method
61	0.18	-4.898
61	0.11	-2.310
34	0.08	-1.386
Std Dev	0.07	-1.000
31	0.06	-0.647
9	0.06	-0.647
14	0.05	-0.092
Median	0.04	0.000
14	0.04	0.092
24	0.03	0.462
79	0.03	0.462
23	0.03	0.647
23	0.03	0.647
24	0.03	0.647

040.20 Indirect Available Phosphate		
Lab		Spectrometric
24	47.39	-2.479
24	47.39	-2.479
9	47.21	-1.697
Std Dev	47.05	-1.000
31	46.84	-0.045
23	46.84	-0.022
61	46.83	0.000
Median	46.83	0.000
23	46.76	0.313
14	46.73	0.447
14	46.72	0.491
Std Dev	46.61	1.000
79	46.50	1.474
61	46.42	1.854

040.40 Indirect Available Phosphate		
Lab		Automated

9	46.80	0.000
Median	46.80	0.000

040.99 Indirect Available Phosphate		
Lab		Other
34	46.90	0.000
Median	46.90	0.000

040.XX Indirect Available Phosphate		
Lab		Total Method
24	47.39	-4.375
24	47.39	-4.375
9	47.21	-2.995
Std Dev	46.96	-1.000
34	46.90	-0.552
31	46.84	-0.079
23	46.84	-0.039
61	46.83	0.000
Median	46.83	0.000
9	46.80	0.236
23	46.76	0.552
14	46.73	0.788
14	46.72	0.867
Std Dev	46.70	1.000
79	46.50	2.601
61	46.42	3.271

041.10 Direct Available Phosphate		
Lab		Gravimetric Quimociac
219	46.64	-0.329
47	46.57	0.000
Median	46.57	0.000
Std Dev	46.36	1.000
107	46.07	2.351

041.20 Direct Available Phosphate		
Lab		Spectrometric
275	46.78	-1.340
Std Dev	46.77	-1.000
Median	46.76	0.000
Std Dev	46.75	1.000
275	46.74	1.340

041.40 Direct Available Phosphate		
Lab		Automated
103	46.78	-1.340
Std Dev	46.76	-1.000
Median	46.70	0.000
Std Dev	46.63	1.000
49	46.61	1.340

041.50 Direct Available Phosphate		
Lab		ICP
63	47.34	-1.590
Std Dev	47.00	-1.000
66	46.50	-0.105
Median	46.44	0.000
47	46.38	0.105
Std Dev	45.87	1.000
80	44.65	3.137

041.60 Direct Available Phosphate		
Lab		EDTA Extract
29	48.09	-2.481
Std Dev	47.35	-1.000
77	46.85	0.000
Median	46.85	0.000
219	46.75	0.199

041.XX Direct Available Phosphate		
Lab		Total Method
29	48.09	-7.051
63	47.34	-3.271
Std Dev	46.89	-1.000
77	46.85	-0.780
103	46.78	-0.453
275	46.78	-0.453
219	46.75	-0.277
275	46.74	-0.252
Median	46.69	0.000
219	46.64	0.252
49	46.61	0.403
47	46.57	0.604
66	46.50	0.981
Std Dev	46.49	1.000
47	46.38	1.585
107	46.07	3.120

80	44.65	10.267
048.20		
Water Soluble Phosphate		
Lab	Spectrometric	
14	43.89	-1.996
14	43.81	-1.791
24	43.62	-1.272
Std Dev	43.52	-1.000
31	43.45	-0.807
24	43.44	-0.766
9	43.34	-0.506
23	43.16	0.000
Median	43.16	0.000
23	43.15	0.014
79	43.08	0.205
61	42.96	0.533
Std Dev	42.79	1.000
61	42.78	1.026
275	42.36	2.174
275	42.10	2.885
048.30		
Water Soluble Phosphate		
Lab	Alka. Quimociac	
111	42.75	0.000
Median	42.75	0.000
048.99		
Water Soluble Phosphate		
Lab	Other	
34	43.07	-1.340
Std Dev	42.95	-1.000
Median	42.62	0.000
Std Dev	42.28	1.000
111	42.16	1.340
048.XX		
Water Soluble Phosphate		
Lab	Total Method	
14	43.89	-1.546
14	43.81	-1.395
24	43.62	-1.014
Std Dev	43.61	-1.000
31	43.45	-0.673
24	43.44	-0.642
9	43.34	-0.452
23	43.16	-0.080

23	43.15	-0.070
Median	43.12	0.000
79	43.08	0.070
34	43.07	0.090
61	42.96	0.311
61	42.78	0.673
111	42.75	0.743
Std Dev	42.62	1.000
275	42.36	1.516
111	42.16	1.917
275	42.10	2.038
050.50		
%K ₂ O		Soluble Potash
Lab	ICP(Oxalate)	
111	0.41	-30.150
Std Dev	0.19	-1.000
23	0.19	-0.670
23	0.19	0.000
Median	0.19	0.000
18	0.18	0.670
Std Dev	0.18	1.000
99	0.17	2.680
050.61		
Soluble Potash		
Lab	Flame Photometric(Citrate)	
219	0.18	0.000
Median	0.18	0.000
050.99		
Soluble Potash		
Lab	%K ₂ O	Other
43	0.19	-0.631
43	0.19	-0.562
61	0.19	-0.320
61	0.19	-0.320
Median	0.19	0.000
31	0.19	0.320
24	0.18	0.960
24	0.18	0.960
Std Dev	0.18	1.000
80	0.02	22.071
050.XX		
Soluble Potash		
Lab	%K ₂ O	Total Method
111	0.41	-30.150

Std Dev	0.19	-1.000
43	0.19	-0.996
43	0.19	-0.924
23	0.19	-0.670
61	0.19	-0.670
61	0.19	-0.670
23	0.19	0.000
31	0.19	0.000
Median	0.19	0.000
18	0.18	0.670
24	0.18	0.670
24	0.18	0.670
Std Dev	0.18	1.000
219	0.18	1.340
99	0.17	2.680
80	0.02	22.780
060.00		
Free Water		
Lab	Vacuum Oven	
111	1.81	-2.734
14	1.71	-1.715
14	1.70	-1.608
Std Dev	1.64	-1.000
79	1.64	-0.911
31	1.60	-0.536
24	1.57	-0.214
23	1.55	0.000
Median	1.55	0.000
9	1.54	0.107
24	1.52	0.322
23	1.51	0.429
34	1.51	0.429
Std Dev	1.46	1.000
43	1.42	1.394
43	1.41	1.554
060.10		
Free Water		
Lab	Vacuum Desiccate	
61	3.89	-1.340
Std Dev	3.83	-1.000
Median	3.68	0.000
Std Dev	3.53	1.000
61	3.48	1.340

060.99		Free Water	
Lab	Other		
275	1.57	-1.340	
Std Dev	1.57	-1.000	
Median	1.57	0.000	
Std Dev	1.56	1.000	
275	1.56	1.340	
060.XX			
Free Water		Total Method	
Lab			
61	3.89	-17.234	
61	3.48	-14.219	
111	1.81	-1.749	
14	1.71	-1.042	
Std Dev	1.70	-1.000	
14	1.70	-0.968	
79	1.64	-0.484	
31	1.60	-0.223	
24	1.57	0.000	
275	1.57	0.000	
Median	1.57	0.000	
275	1.56	0.074	
23	1.55	0.149	
9	1.54	0.223	
24	1.52	0.372	
23	1.51	0.447	
34	1.51	0.447	
Std Dev	1.44	1.000	
43	1.42	1.117	
43	1.41	1.228	
101.00			
Acid Soluble Calcium		Atomic Absorption	
Lab	%CaO		
219	0.62	0.000	
Median	0.62	0.000	
101.30			
Acid Soluble Calcium		ICP	
Lab	%CaO		
61	0.63	-1.608	
Std Dev	0.62	-1.000	
23	0.62	-0.938	
23	0.62	-0.603	
61	0.62	-0.603	
14	0.61	-0.268	

24	0.61	-0.268
43	0.61	-0.164
31	0.61	0.000
Median	0.61	0.000
43	0.60	0.324
24	0.60	0.402
14	0.60	0.737
Std Dev	0.59	1.000
9	0.59	1.072
111	0.58	1.742
34	0.57	2.412
315	0.54	4.422

101.99	Acid Soluble Calcium	
Lab	%CaO	Other
219	0.62	0.000
Median	0.62	0.000

101.XX	Acid Soluble Calcium	
Lab	%CaO	Total Method
61	0.63	-1.444
219	0.62	-1.076
Std Dev	0.62	-1.000
219	0.62	-0.808
23	0.62	-0.774
23	0.62	-0.439
61	0.62	-0.439
14	0.61	-0.104
24	0.61	-0.104
43	0.61	0.000
Median	0.61	0.000
31	0.61	0.164
43	0.60	0.487
24	0.60	0.566
14	0.60	0.901
Std Dev	0.59	1.000
9	0.59	1.236
111	0.58	1.906
34	0.57	2.576
315	0.54	4.586

121.00	Acid Soluble Magnesium	
Lab	%MgO	Atomic Absorption
219	1.82	0.000

Median	1.82	0.000
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121.30	Acid Soluble Magnesium	
Lab	%MgO	ICP
24	1.93	-1.203
Std Dev	1.91	-1.000
23	1.90	-0.875
24	1.90	-0.820
23	1.89	-0.766
61	1.87	-0.492
61	1.87	-0.492
9	1.83	-0.109
31	1.82	0.000
Median	1.82	0.000
34	1.78	0.438
111	1.78	0.438
315	1.78	0.438
14	1.73	0.984
Std Dev	1.73	1.000
14	1.72	1.149
43	1.66	1.750
43	1.66	1.750

121.99	Acid Soluble Magnesium	
Lab	%MgO	Other
219	1.69	0.000
Median	1.69	0.000

121.XX	Acid Soluble Magnesium	
Lab	%MgO	Total Method
24	1.93	-1.132
Std Dev	1.92	-1.000
23	1.90	-0.834
24	1.90	-0.784
23	1.89	-0.735
61	1.87	-0.486
61	1.87	-0.486
9	1.83	-0.139
31	1.82	-0.040
219	1.82	0.000
Median	1.82	0.000
34	1.78	0.357
111	1.78	0.357
315	1.78	0.357

14	1.73	0.854
Std Dev	1.72	1.000
14	1.72	1.003
219	1.69	1.295
43	1.66	1.548
43	1.66	1.548

144..01	Sulfate Sulfur (S)	
Lab		Gravimetric
79	2.10	0.000
Median	2.10	0.000

144.70	Sulfur	
Lab		Spectrometric
14	2.08	0.000
14	2.08	0.000
Median	2.08	0.000

144.99	Sulfate Sulfur (S)	
Lab		Other
9	6.20	-36.537
31	5.99	-34.626
275	2.26	-1.340
Std Dev	2.22	-1.000
275	2.18	-0.625
23	2.11	0.000
23	2.11	0.000
Median	2.11	0.000
24	2.08	0.268
24	2.07	0.357
34	2.07	0.357
61	2.05	0.581
61	2.03	0.759

144.XX	Sulfate Sulfur (S)	
Lab		Total Method
9	6.20	-60.392
31	5.99	-57.249
275	2.26	-2.533
275	2.18	-1.358
Std Dev	2.16	-1.000
23	2.11	-0.330
23	2.11	-0.330
79	2.10	-0.110

Median	2.09	0.000
24	2.08	0.110
14	2.08	0.184
14	2.08	0.184
24	2.07	0.257
34	2.07	0.257
61	2.05	0.624
61	2.03	0.918

145.99	Total Sulfur (S)	
Lab		Other
315	2.10	-2.412
Std Dev	2.09	-1.000
111	2.08	-0.268
Median	2.08	0.000
43	2.08	0.268
Std Dev	2.07	1.000
43	2.07	1.340

145.XX	Total Sulfur (S)	
Lab		Total Method
315	2.10	-2.412
Std Dev	2.09	-1.000
111	2.08	-0.268
Median	2.08	0.000
43	2.08	0.268
Std Dev	2.07	1.000
43	2.07	1.340

151.30	Total Arsenic	
Lab		ICP
9	3.25	-1.276
43	3.20	-1.212
43	3.15	-1.149
Std Dev	3.03	-1.000
18	2.65	-0.510
24	2.25	0.000
Median	2.25	0.000
315	2.15	0.128
61	2.10	0.191
61	2.05	0.255
Std Dev	1.47	1.000
31	1.45	1.021

151.XX Total Arsenic		
Lab	PPM	Total Method
9	3.25	-1.276
43	3.20	-1.212
43	3.15	-1.149
Std Dev	3.03	-1.000
18	2.65	-0.510
24	2.25	0.000
Median	2.25	0.000
315	2.15	0.128
61	2.10	0.191
61	2.05	0.255
Std Dev	1.47	1.000
31	1.45	1.021

165.99 Acid Soluble Boron		
Lab	PPM	Other
24	95.70	0.000
Median	95.70	0.000

65.XX, ppm Acid Soluble Boron		
Lab	PPM	Total Method
24	95.70	0.000
Median	95.70	0.000

181.30 Total Cadmium		
Lab	PPM	ICP
111	43.50	-6.072
9	31.50	-1.047
Std Dev	31.39	-1.000
315	31.20	-0.921
31	30.70	-0.712
61	29.00	0.000
Median	29.00	0.000
18	28.60	0.167
61	28.00	0.419
43	27.49	0.632
43	26.70	0.963

181.99 Total Cadmium		
Lab	PPM	Other
24	28.80	0.000
Median	28.80	0.000

181.XX Total Cadmium		
Lab	PPM	Total Method
111	43.50	-6.689
9	31.50	-1.191
315	31.20	-1.054
Std Dev	31.08	-1.000
31	30.70	-0.825
61	29.00	-0.046
Median	28.90	0.000
24	28.80	0.046
18	28.60	0.137
61	28.00	0.412
43	27.49	0.646
Std Dev	26.72	1.000
43	26.70	1.008

190.00 Aluminum		
Lab	%Al ₂ O ₃	ICP
14	0.60	-2.948
14	0.59	-2.412
Std Dev	0.56	-1.000
23	0.56	-0.804
9	0.55	-0.536
24	0.55	-0.536
23	0.55	-0.268
24	0.54	0.000
34	0.54	0.000
43	0.54	0.000
43	0.54	0.000
Median	0.54	0.000
Std Dev	0.52	1.000
61	0.52	1.072
61	0.52	1.072
315	0.50	1.956
111	0.41	6.968

190.99 Aluminum		
Lab	%Al ₂ O ₃	Atomic Absorption
31	0.55	0.000
Median	0.55	0.000

190.XX Aluminum		
Lab	%Al ₂ O ₃	Total Method
14	0.60	-3.685

14	0.59	-3.015
23	0.56	-1.005
Std Dev	0.55	-1.000
9	0.55	-0.670
24	0.55	-0.670
31	0.55	-0.670
23	0.55	-0.335
24	0.54	0.000
34	0.54	0.000
43	0.54	0.000
43	0.54	0.000
Median	0.54	0.000
Std Dev	0.53	1.000
61	0.52	1.340
61	0.52	1.340
315	0.50	2.446
111	0.41	8.710

191.30 Total Chromium		
Lab	PPM	ICP
61	265.50	-1.238
Std Dev	262.92	-1.000
61	260.50	-0.776
315	257.00	-0.453
9	256.50	-0.407
31	252.10	0.000
Median	252.10	0.000
43	246.00	0.564
111	242.50	0.887
Std Dev	241.28	1.000
43	240.00	1.118
18	237.95	1.308

191.99 Total Chromium		
Lab	PPM	Other
24	261.00	0.000
Median	261.00	0.000

191.XX Total Chromium		
Lab	PPM	Total Method
61	265.50	-0.924
24	261.00	-0.552
61	260.50	-0.511
315	257.00	-0.223

9	256.50	-0.181
Median	254.30	0.000
31	252.10	0.181
43	246.00	0.684
111	242.50	0.973
Std Dev	242.17	1.000
43	240.00	1.179
18	237.95	1.348

202.30 Acid Soluble Cobalt		
Lab	PPM	ICP
111		

202.99 Acid Soluble Cobalt		
Lab	PPM	Other
24	0.97	0.000
Median	0.97	0.000

202.XX Acid Soluble Cobalt		
Lab	PPM	Total Method
111	12.00	-26.542
Std Dev	2.09	-1.000
43	2.00	-0.773
43	2.00	-0.773
61	1.70	0.000
Median	1.70	0.000
18	1.70	0.000
61	1.65	0.129
Std Dev	1.31	1.000
24	0.97	1.881
31	0.50	3.092

221.30 Acid Soluble Copper		
Lab	PPM	ICP
61	<0.4	0.000
61	<0.4	0.000
18	1.35	-1.340
Std Dev	1.24	-1.000
Median	0.93	0.000
31	0.50	1.340

221.99 Acid Soluble Copper		
Lab	PPM	Other
24	0.24	0.000
Median	0.24	0.000

221.XX Acid Soluble Copper		
Lab	PPM	Total Method
61	<0.4	0.000
61	<0.4	0.000
18	1.35	-2.052
Std Dev	0.91	-1.000
31	0.50	0.000
Median	0.50	0.000
24	0.24	0.628

241.30 Acid Soluble Iron		
Lab	%Fe ₂ O ₃	ICP
111	60.00	-2638.907
14	0.95	-1.340
14	0.95	-1.117
Std Dev	0.94	-1.000
23	0.92	0.000
23	0.92	0.000
24	0.92	0.000
24	0.92	0.000
34	0.92	0.000
Median	0.92	0.000
61	0.91	0.447
61	0.91	0.670
Std Dev	0.90	1.000
9	0.89	1.340
31	0.89	1.340
43	0.89	1.340
43	0.89	1.340
315	0.88	2.010

241.99 Acid Soluble Iron		
Lab	%Fe ₂ O ₃	Other
219	0.90	-1.340
Std Dev	0.90	-1.000
Median	0.90	0.000
Std Dev	0.90	1.000
219	0.90	1.340

241.XX Acid Soluble Iron		
Lab	%Fe ₂ O ₃	Total Method
111	60.00	-2639.353
14	0.95	-1.787

14	0.95	-1.563
Std Dev	0.93	-1.000
23	0.92	-0.447
23	0.92	-0.447
24	0.92	-0.447
24	0.92	-0.447
34	0.92	-0.447
61	0.91	0.000
Median	0.91	0.000
61	0.91	0.223
219	0.90	0.491
219	0.90	0.603
9	0.89	0.893
31	0.89	0.893
43	0.89	0.893
43	0.89	0.893
Std Dev	0.89	1.000
315	0.88	1.563

251.30 Total Lead		
Lab	PPM	ICP
111	10.50	-10.895
Std Dev	2.01	-1.000
61	1.85	-0.816
18	1.65	-0.583
61	1.30	-0.175
43	1.15	0.000
43	1.15	0.000
Median	1.15	0.000
9	0.50	0.757
31	0.50	0.757
315	0.38	0.903

251.99 Total Lead		
Lab	PPM	Other
24	0.05	0.000
Median	0.05	0.000

251.XX Total Lead		
Lab	PPM	Total Method
111	10.50	-11.792
Std Dev	1.94	-1.000
61	1.85	-0.883
18	1.65	-0.631

61	1.30	-0.189
43	1.15	0.000
43	1.15	0.000
Median	1.15	0.000
9	0.50	0.820
31	0.50	0.820
315	0.38	0.977
Std Dev	0.36	1.000
24	0.05	1.387

261.11 Acid Soluble Manganese		
Lab	PPM	Atomic Absorption
219	40.57	0.000
Median	40.57	0.000

261.30 Acid Soluble Manganese		
Lab	PPM	ICP
111	59.00	-12.472
9	48.20	-1.340
Std Dev	47.87	-1.000
31	46.90	0.000
Median	46.90	0.000
315	46.90	0.000
Std Dev	45.93	1.000
18	42.85	4.175

261.99 Acid Soluble Manganese		
Lab	PPM	Other
43	48.00	-1.084
Std Dev	47.79	-1.000
24	47.70	-0.966
43	46.50	-0.493
Median	45.25	0.000
61	44.00	0.493
61	44.00	0.493
219	42.82	0.958

261.XX Acid Soluble Manganese		
Lab	PPM	Total Method
111	59.00	-4.057
Std Dev	49.73	-1.000
9	48.20	-0.495
43	48.00	-0.429
24	47.70	-0.330

31	46.90	-0.066
315	46.90	-0.066
Median	46.70	0.000
43	46.50	0.066
61	44.00	0.891
61	44.00	0.891
Std Dev	43.67	1.000
18	42.85	1.270
219	42.82	1.280
219	40.57	2.022

281.30 Total Mercury		
Lab	PPM	ICP
24	0.06	0.000
Median	0.06	0.000

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

289.30 Total Molybdenum		
Lab	PPM	ICP
111		

289.99 Total Molybdenum		
Lab	PPM	Other
24	5.51	0.000
Median	5.51	0.000

289.XX Total Molybdenum		
Lab	PPM	Total Method
111	11.50	-7.793
18	5.55	-1.121
24	5.51	-1.076
Std Dev	5.44	-1.000
43	4.65	-0.112
Median	4.55	0.000
43	4.45	0.112
61	4.35	0.224
61	4.25	0.336
Std Dev	3.66	1.000
31	3.10	1.626

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301.30		Total Selenium
Lab	PPM	ICP
61	<0.1	0.000
61	<0.1	0.000
24	0.21	0.000
Median	0.21	0.000

301.XX		Total Selenium
Lab	PPM	Total Mthod
61	<0.1	0.000
61	<0.1	0.000
24	0.21	0.000
Median	0.21	0.000

311.99		Sodium
Lab	%Na ₂ O	Other
9	0.37	-1.827
111	0.36	-1.279
Std Dev	0.35	-1.000
23	0.34	-0.731
24	0.34	-0.731
24	0.34	-0.731
31	0.33	-0.183
23	0.32	0.000
61	0.32	0.000
61	0.32	0.000
Median	0.32	0.000
43	0.30	0.609
43	0.30	0.646
315	0.30	0.731
Std Dev	0.29	1.000
18	0.29	1.279

311.XX		Sodium
Lab	%Na ₂ O	Total Method
9	0.37	-1.827

111	0.36	-1.279
Std Dev	0.35	-1.000
23	0.34	-0.731
24	0.34	-0.731
24	0.34	-0.731
31	0.33	-0.183
23	0.32	0.000
61	0.32	0.000
61	0.32	0.000
Median	0.32	0.000
43	0.30	0.609
43	0.30	0.646
315	0.30	0.731
Std Dev	0.29	1.000
18	0.29	1.279

321.00		Acid Soluble Zinc
Lab		Atomic Absorption
219	409.00	0.000
Median	409.00	0.000

321.30		Acid Soluble Zinc
Lab	PPM	ICP
31	432.80	-0.947
9	431.45	-0.873
24	431.00	-0.848
315	420.50	-0.274
Median	415.50	0.000
61	410.50	0.274
61	409.00	0.356
111	399.50	0.876
Std Dev	397.23	1.000
18	393.55	1.201

321.99		Acid Soluble Zinc
Lab		Other
219	401.15	-2.532
Std Dev	390.77	-1.000
43	384.00	0.000
Median	384.00	0.000
43	383.00	0.148

321.XX		Acid Soluble Zinc
Lab	PPM	Total Method

31	432.80	-1.270
9	431.45	-1.198
24	431.00	-1.174
Std Dev	427.74	-1.000
315	420.50	-0.614
61	410.50	-0.080
61	409.00	0.000
219	409.00	0.000
Median	409.00	0.000
219	401.15	0.419
111	399.50	0.507
18	393.55	0.824
Std Dev	390.26	1.000
43	384.00	1.334
43	383.00	1.387

325.10		Fluoride
Lab	%	Electrode
111	2.30	-44.220
275	1.22	-2.871
23	1.17	-0.957
23	1.16	-0.574
275	1.16	-0.574
34	1.15	-0.191
Median	1.15	0.000
9	1.14	0.191
24	1.14	0.191
31	1.13	0.574
24	1.12	0.957
14	1.11	1.340
14	1.10	1.914

325.99		Fluoride
Lab	%	Other
61	1.21	-1.340
Median	1.18	0.000
61	1.15	1.340

325.XX		Fluoride
Lab	%	Total Method
111	2.30	-44.029
275	1.22	-2.680
61	1.21	-2.106
23	1.17	-0.766

23	1.16	-0.383
275	1.16	-0.383
34	1.15	0.000
61	1.15	0.000
Median	1.15	0.000
9	1.14	0.383
24	1.14	0.383
31	1.13	0.766
24	1.12	1.149
14	1.11	1.531
14	1.10	2.106

291.XX		Total Nickel
Lab	PPM	Total Method
18	25.5	-1.13636
StDEv	25.2	-1
9	23.55	-0.25
61	23	0
median	23	0
61	23	0
24	22.8	0.090909
		10.45455
		0.909091
StDEv	20.8	1
43	20	1.363636
31	13.35	4.386364