

## AFPC

2016-05

Grade

18-46-0

## Sample

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
<b>AMMONIACAL NITROGEN</b>					
Ammoniacal Nitrogen, Other		001.99	15	17.84	0.08
Method Group 001.XX PCT			15	17.84	0.09
<b>TOTAL NITROGEN</b>					
Total Nitrogen, Modified Comprehensive	978.02	010.11	3	17.93	0.07
Total Nitrogen, Salicylic	955.04d	010.12	1	18.11	0.00
Total Nitrogen, Combustion	993.13	010.60	21	18.06	0.09
Total Nitrogen, Other		010.99	5	17.91	0.24
Method Group 010.XX PCT			30	18.05	0.17
<b>TOTAL PHOSPHATE</b>					
Total Phosphate, Gravimetric Quimociac		020.10	3	46.49	0.17
Total Phosphate, Spectrometric	978.02	020.20	24	46.37	0.26
Total Phosphate, ICP	970.03	020.40	3	46.47	0.18
Total Phosphate, Other	993.13	020.99	1	45.78	0.00
Method Group 020.XX PCT			31	46.40	0.33
<b>INSOLUBLE PHOSPHATE</b>					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	8	0.14	0.04
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.23	0.00
Insoluble Phosphate, Automated	978.01	030.40	3	0.19	0.03
Insoluble Phosphate, Other		030.99	2	0.11	0.00
Method Group 030.XX PCT			14	0.14	0.07
<b>INDIRECT AVAILABLE PHOSPHATE</b>					
Indirect Available Phosphate, Spectrometric	960.02	040.20	11	46.31	0.18
Indirect Available Phosphate, Automated	960.02	040.40	1	46.28	0.00
Indirect Available Phosphate, Other		040.99	3	46.15	0.09
Method Group 040.XX PCT			15	46.28	0.14
<b>DIRECT AVAILABLE PHOSPHATE</b>					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	3	46.57	0.51
Direct Available Phosphate, Spectrometric	960.03D	041.20	3	46.11	0.13
Direct Available Phosphate, Automated	978.01	041.40	1	45.79	0.00
Direct Available Phosphate, ICP		041.50	2	45.83	0.17
Direct Available Phosphate, EDTA Extract	993.01	041.60	5	46.19	0.22

AFPC Check Sample 05-2016			14	46.11	0.50
<b>WATER SOLUBLE PHOSPHATE</b>					
Water Soluble Phosphate, Spectrometric	970.01	048.20	15	41.94	0.18
Water Soluble Phosphate, Other		048.99	4	42.07	0.75
Method Group 048.XX PCT			19	42.04	0.21
<b>SOLUBLE POTASH AS K<sub>2</sub>O</b>					
Soluble Potash, Atomic Absorption(Citrate)		050.31	1	0.24	0.00
Soluble Potash, ICP(Oxalate)		050.50	3	0.16	0.00
Soluble Potash, ICP(Citrate)		050.51	1	0.17	0.00
Soluble Potash, Other		050.99	7	0.16	0.01
Method Group 050.XX PCT			12	0.16	0.01
<b>FREE WATER</b>					
Free Water, Vacuum Oven	965.08B	060.00	15	1.82	0.19
Free Water, Vacuum Desiccate	965.08A	060.10	2	1.78	0.03
Free Water, Other		060.99	3	2.11	0.38
Method Group 060.XX PCT			20	1.83	0.23
<b>ACID SOLUBLE CALCIUM AS CaO</b>					
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.19	0.00
Acid Soluble Calcium, ICP		101.30	16	0.30	0.03
Method Group 101.XX PCT			17	0.29	0.04
<b>ACID SOLUBLE MAGNESIUM AS MgO</b>					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	0.74	0.00
Acid Soluble Magnesium, ICP		121.30	16	0.91	0.04
Method Group 121.XX PCT			17	0.90	0.05
<b>WATER SOLUBLE MAGNESIUM</b>					
Water Soluble Magnesium, Other		131.99	1	0.41	0.00
Method Group 131.XX PCT			1	0.41	0.00
<b>SULFATE SULFUR (S)</b>					
Sulfur, Gravimetric	980.02(a)	144.01	3	1.53	0.05
Sulfur, Spectrometric		144.70	2	1.49	0.01
Sulfur, Other		144.99	10	1.45	0.03
Method Group 144.XX PCT			15	1.46	0.05
<b>TOTAL SULFUR (S)</b>					
Sulfur, Other		145.99	3	1.54	0.2
Method Group 145.XX PCT			3	1.54	0.2
<b>TOTAL ARSENIC</b>					
Total Arsenic, ICP	980.02(b)	151.02	8	12.1	0.6
Total Arsenic, Other		151.99	2	13.2	0.0

AFPC Check Sample 05-2016		10	12.4	1.0
<b>ACID SOLUBLE BORON</b>				
Acid Soluble Boron, Other	165.99	1	37	0.0
Method Group 165.XX PPM		1	37	0.0
<b>TOTAL CADMIUM</b>				
Total Cadmium, Atomic Absorbtion	181.00	1	4	0.0
Total Cadmium, ICP	181.30	9	3.0	0.4
Total Cadmium, Other	181.99	1	3.6	0.0
Method Group 181.XX PPM		11	3.0	0.6
<b>ALUMINUM AS Al<sub>2</sub>O<sub>3</sub></b>				
ICP, %		15	1.50	0.06
Water Soluble Chlorine, Other, %	190.99	2	0.95	0.46
Method Group 190.XX PCT		17	1.50	0.09
<b>TOTAL CHROMIUM</b>				
Total Chromium, Atomic Absorbtion	191.00	1	43	0.0
Total Chromium, ICP	191.30	8	76	2.4
Total Chromium, Other	191.99	1	81	0.0
Method Group 191.XX PPM		10	76	3.7
<b>ACID SOLUBLE COBALT</b>				
Acid Soluble Cobalt, ICP	202.30	6	3	0.3
Acid Soluble Cobalt, Other	202.99	2	3	0.2
Method Group 202.XX PPM		8	3	0.4
<b>ACID SOLUBLE COPPER</b>				
Acid Soluble Copper, ICP	221.30	5	1.0	0.0
Acid Soluble Copper, Other	221.99	1	5.0	0.0
Method Group 221.XX PPM		3	1.0	0.3
<b>ACID SOLUBLE IRON AS Fe<sub>2</sub>O<sub>3</sub></b>				
Acid Soluble Iron, ICP	241.30	16	1.30	0.04
Method Group 241.XX PCT		17	1.31	0.04
<b>TOTAL LEAD</b>				
Total Lead, ICP	251.30	6	1	1.2
Total Lead, Other	251.99	1	1.3	0.0
Method Group 251.XX PPM		7	1	1.1
<b>ACID SOLUBLE MANGANESE</b>				
Acid Soluble Manganese, ICP	972.02a 261.30	1	313	0.0
Acid Soluble Manganese, Other	261.99	8	326	8.3
Method Group 261.XX PPM		9	324	13.6
<b>TOTAL MERCURY</b>				

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Total Mercury, ICP		281.30	1	0.00	0.00
Method Group 281.XX PPM			1	0.54	0.00
<b>TOTAL MOLYBDENUM</b>					
Total Molybdenum, ICP		289.30	7	11	1.1
Total Molybdenum, Other		289.99	1	13	0.0
Method Group 289.XX PPM			8	12	1.4
<b>TOTAL NICKEL</b>					
Total Nickel, ICP		291.30	7	11.5	0.3
Total Nickel, icp		291.99	1	13.1	0.0
Method Group 291.XX PPM			8	11.5	0.5
<b>TOTAL SELENIUM</b>					
Total Selenium, ICP		301.30	3	2.9	1.0
Total Selenium, Other		301.99	1	3	0.0
Method Group 301.XX PPM			4	2.7	0.9
<b>SODIUM AS Na<sub>2</sub>O</b>					
Sodium, Atomic Absorbtion	983.04	311.00	1	0.95	0.00
Sodium, Other		311.99	8	0.22	0.02
Method Group 311.XX PCT			9	0.22	0.02
<b>ACID SOLUBLE ZINC</b>					
Acid Soluble Zinc, ICP		321.30	7	56.8	2.9
Acid Soluble Zinc, Other		321.99	2	48.0	0.0
Method Group 321.XX %			9	55.0	8.2
<b>FLUORIDE</b>					
Volumetric		325.10	13	2.01	0.05
Electrode	AFPC	325.30	1	2.08	0.00
Distilled/Electrode		325.99	5	2.07	0.05
Method Group 325.XX PCT			19	2.04	0.06

001.99 Ammoniacal Nitrogen		
Lab		Other
140	18.12	-3.595
220	18.10	-3.399
330	17.97	-1.634
<b>Std Dev</b>	<b>17.92</b>	<b>-1.000</b>
61	17.89	-0.654
61	17.87	-0.327
24	17.85	-0.131
34	17.85	-0.131
32	17.84	0.000
<b>Median</b>	<b>17.84</b>	<b>0.000</b>
32	17.82	0.261
310	17.81	0.392
24	17.78	0.784
23	17.77	0.915
23	17.77	0.980
<b>Std Dev</b>	<b>17.76</b>	<b>1.000</b>
79	17.76	1.111
38	17.16	8.877

001.XX Ammoniacal Nitrogen		
Lab		Total Method
140	18.12	-3.595
220	18.10	-3.399
330	17.97	-1.634
<b>Std Dev</b>	<b>17.92</b>	<b>-1.000</b>
61	17.89	-0.654
61	17.87	-0.327
24	17.85	-0.131
34	17.85	-0.131
32	17.84	0.000
<b>Median</b>	<b>17.84</b>	<b>0.000</b>
32	17.82	0.261
310	17.81	0.392
24	17.78	0.784
23	17.77	0.915
23	17.77	0.980
<b>Std Dev</b>	<b>17.76</b>	<b>1.000</b>
79	17.76	1.111
38	17.16	8.877

010.11 Total Nitrogen		
Lab		Modified Comprehensive

219	18.04	-1.594
<b>Std Dev</b>	<b>18.00</b>	<b>-1.000</b>
43	17.93	0.000
<b>Median</b>	<b>17.93</b>	<b>0.000</b>
<b>Std Dev</b>	<b>17.86</b>	<b>1.000</b>
43	17.86	1.086

010.12 Total Nitrogen		
Lab		Salicylic
107	18.11	0.000
<b>Median</b>	<b>18.11</b>	<b>0.000</b>

010.60 Total Nitrogen		
Lab		Combustion
49	18.31	-2.642
80	18.25	-2.053
66	18.22	-1.731
47	18.20	-1.463
<b>Std Dev</b>	<b>18.15</b>	<b>-1.000</b>
219	18.11	-0.552
79	18.09	-0.338
24	18.08	-0.230
34	18.08	-0.230
9	18.06	-0.016
24	18.06	-0.016
39	18.06	0.000
<b>Median</b>	<b>18.06</b>	<b>0.000</b>
110	18.05	0.091
137	18.00	0.627
14	18.00	0.681
9	17.98	0.842
<b>Std Dev</b>	<b>17.97</b>	<b>1.000</b>
14	17.97	1.002
77	17.96	1.056
64	17.90	1.753
31	17.75	3.307
103	17.72	3.629
99	17.72	3.682

010.99 Total Nitrogen		
Lab		Other
330	18.39	-2.021
140	18.17	-1.085
<b>Std Dev</b>	<b>18.15</b>	<b>-1.000</b>

32	17.91	0.000
<b>Median</b>	<b>17.91</b>	<b>0.000</b>
32	17.85	0.255
38	17.79	0.500

010.XX Total Nitrogen		
Lab		Total Method
330	18.39	-2.446
49	18.31	-1.871
80	18.25	-1.475
66	18.22	-1.259
47	18.20	-1.079
<b>Std Dev</b>	<b>18.18</b>	<b>-1.000</b>
140	18.17	-0.863
219	18.11	-0.468
107	18.11	-0.432
79	18.09	-0.324
24	18.08	-0.252
34	18.08	-0.252
9	18.06	-0.108
24	18.06	-0.108
39	18.06	-0.097
110	18.05	-0.036
<b>Median</b>	<b>18.05</b>	<b>0.000</b>
219	18.04	0.036
137	18.00	0.324
14	18.00	0.360
9	17.98	0.468
14	17.97	0.576
77	17.96	0.612
43	17.93	0.827
32	17.91	0.971
<b>Std Dev</b>	<b>17.91</b>	<b>1.000</b>
64	17.90	1.079
43	17.86	1.367
32	17.85	1.403
38	17.79	1.817
31	17.75	2.122
103	17.72	2.338
99	17.72	2.374

020.10 Total Phosphate		
Lab		Gravimetric Quimociac
219	46.75	-1.536

<b>Std Dev</b>	<b>46.66</b>	<b>-1.000</b>
241	46.49	0.000
<b>Median</b>	<b>46.49</b>	<b>0.000</b>
<b>Std Dev</b>	<b>46.32</b>	<b>1.000</b>
310	46.30	1.144

020.20 Total Phosphate		
Lab		Spectrometric
38	47.50	-4.405
31	47.28	-3.515
99	46.96	-2.272
140	46.75	-1.476
220	46.73	-1.392
9	46.69	-1.223
<b>Std Dev</b>	<b>46.63</b>	<b>-1.000</b>
14	46.62	-0.971
14	46.56	-0.738
24	46.53	-0.621
24	46.52	-0.583
9	46.52	-0.563
34	46.40	-0.117
<b>Median</b>	<b>46.37</b>	<b>0.000</b>
275	46.34	0.117
23	46.34	0.136
23	46.33	0.175
61	46.32	0.214
43	46.30	0.272
275	46.30	0.272
61	46.27	0.408
79	46.27	0.408
32	46.26	0.427
43	46.24	0.505
32	46.15	0.854
<b>Std Dev</b>	<b>46.11</b>	<b>1.000</b>
110	43.79	10.040

020.40 Total Phosphate		
Lab		Automated
137	46.67	-1.169
<b>Std Dev</b>	<b>46.64</b>	<b>-1.000</b>
9	46.47	0.000
<b>Median</b>	<b>46.47</b>	<b>0.000</b>
<b>Std Dev</b>	<b>46.29</b>	<b>1.000</b>
219	46.20	1.511

020.99 Total Phosphate		
Lab		Other
330	45.78	0.000
<b>Median</b>	<b>45.78</b>	<b>0.000</b>

020.XX Total Phosphate		
Lab		Total Method
38	47.50	-4.081
31	47.28	-3.234
99	46.96	-2.052
140	46.75	-1.294
219	46.75	-1.275
220	46.73	-1.214
9	46.69	-1.054
<b>Std Dev</b>	<b>46.67</b>	<b>-1.000</b>
137	46.67	-0.998
14	46.62	-0.813
14	46.56	-0.591
24	46.53	-0.481
24	46.52	-0.444
9	46.52	-0.425
241	46.49	-0.333
9	46.47	-0.240
34	46.40	0.000
<b>Median</b>	<b>46.40</b>	<b>0.000</b>
275	46.34	0.222
23	46.34	0.240
23	46.33	0.277
61	46.32	0.314
43	46.30	0.370
275	46.30	0.370
310	46.30	0.370
61	46.27	0.499
79	46.27	0.499
32	46.26	0.518
43	46.24	0.591
219	46.20	0.739
32	46.15	0.924
<b>Std Dev</b>	<b>46.13</b>	<b>1.000</b>
330	45.78	2.292
110	43.79	9.666

030.20 Insoluble Phosphate		
Lab		Spectrometric
79	0.33	-4.586
24	0.19	-1.251
<b>Std Dev</b>	<b>0.18</b>	<b>-1.000</b>
24	0.17	-0.774
140	0.14	-0.060
<b>Median</b>	<b>0.14</b>	<b>0.000</b>
23	0.14	0.060
23	0.13	0.179
<b>Std Dev</b>	<b>0.10</b>	<b>1.000</b>
61	0.09	1.251
61	0.07	1.608

030.30 Insoluble Phosphate		
Lab		Alka. Quimociac
31	0.23	0.000
<b>Median</b>	<b>0.23</b>	<b>0.000</b>

030.40 Insoluble Phosphate		
Lab		Automated
9	0.21	-0.744
9	0.19	0.000
<b>Median</b>	<b>0.19</b>	<b>0.000</b>
<b>Std Dev</b>	<b>0.15</b>	<b>1.000</b>
34	0.12	1.936

030.99 Insoluble Phosphate		
Lab		Other
32	0.12	-1.340
<b>Std Dev</b>	<b>0.11</b>	<b>-1.000</b>
<b>Median</b>	<b>0.11</b>	<b>0.000</b>
<b>Std Dev</b>	<b>0.11</b>	<b>1.000</b>
32	0.11	1.340

030.XX Insoluble Phosphate		
Lab		Total Method
79	0.33	-3.558
31	0.23	-1.710
9	0.21	-1.340
<b>Std Dev</b>	<b>0.19</b>	<b>-1.000</b>
24	0.19	-0.970
9	0.19	-0.878
24	0.17	-0.601

140	0.14	-0.046
<b>Median</b>	<b>0.14</b>	<b>0.000</b>
23	0.14	0.046
23	0.13	0.139
34	0.12	0.323
32	0.12	0.416
32	0.11	0.508
61	0.09	0.970
<b>Std Dev</b>	<b>0.08</b>	<b>1.000</b>
61	0.07	1.248

040.20 Indirect Available Phosphate		
Lab		Spectrometric
31	47.05	-4.175
140	46.61	-1.721
9	46.50	-1.100
<b>Std Dev</b>	<b>46.48</b>	<b>-1.000</b>
24	46.37	-0.367
24	46.32	-0.085
9	46.31	0.000
<b>Median</b>	<b>46.31</b>	<b>0.000</b>
61	46.25	0.339
23	46.20	0.592
23	46.20	0.621
61	46.18	0.705
<b>Std Dev</b>	<b>46.13</b>	<b>1.000</b>
79	45.93	2.116

040.40 Indirect Available Phosphate		
Lab		Automated
9	46.28	0.000
<b>Median</b>	<b>46.28</b>	<b>0.000</b>

040.99 Indirect Available Phosphate		
Lab		Other
34	46.28	-1.508
<b>Std Dev</b>	<b>46.23</b>	<b>-1.000</b>
32	46.15	0.000
<b>Median</b>	<b>46.15</b>	<b>0.000</b>
<b>Std Dev</b>	<b>46.06</b>	<b>1.000</b>
32	46.04	1.172

040.XX Indirect Available Phosphate		
Lab		Total Method

31	47.05	-6.509
140	46.61	-2.808
9	46.50	-1.872
<b>Std Dev</b>	<b>46.40</b>	<b>-1.000</b>
24	46.37	-0.766
24	46.32	-0.340
9	46.31	-0.213
9	46.28	0.000
34	46.28	0.000
<b>Median</b>	<b>46.28</b>	<b>0.000</b>
61	46.25	0.298
23	46.20	0.681
23	46.20	0.723
61	46.18	0.851
<b>Std Dev</b>	<b>46.16</b>	<b>1.000</b>
32	46.15	1.149
32	46.04	2.042
79	45.93	2.978

041.10 Direct Available Phosphate		
Lab		Gravimetric Quimociac
47	46.81	-0.465
219	46.57	0.000
<b>Median</b>	<b>46.57</b>	<b>0.000</b>
<b>Std Dev</b>	<b>46.06</b>	<b>1.000</b>
107	45.45	2.215

041.20 Direct Available Phosphate		
Lab		Spectrometric
275	46.15	-0.332
275	46.11	0.000
<b>Median</b>	<b>46.11</b>	<b>0.000</b>
<b>Std Dev</b>	<b>45.98</b>	<b>1.000</b>
220	45.81	2.348

041.40 Direct Available Phosphate		
Lab		Automated
49	45.79	0.000
<b>Median</b>	<b>45.79</b>	<b>0.000</b>

041.50 Direct Available Phosphate		
Lab		ICP
66	46.06	-1.340
<b>Std Dev</b>	<b>46.00</b>	<b>-1.000</b>

Median	45.83	0.000
Std Dev	45.66	1.000
80	45.60	1.340

041.60	Direct Available Phosphate	
Lab	EDTA Extract	
64	46.56	-1.681
Std Dev	46.41	-1.000
219	46.40	-0.977
137	46.19	0.000
Median	46.19	0.000
77	46.11	0.363
Std Dev	45.96	1.000
103	44.78	6.405

041.XX	Direct Available Phosphate	
Lab	Total Method	
47	46.81	-1.697
219	46.57	-1.126
64	46.56	-1.089
Std Dev	46.52	-1.000
219	46.40	-0.712
137	46.19	-0.189
275	46.15	-0.108
275	46.11	-0.006
Median	46.11	0.000
77	46.11	0.006
66	46.06	0.128
220	45.81	0.718
49	45.79	0.773
Std Dev	45.70	1.000
80	45.60	1.235
107	45.45	1.600
103	44.78	3.243

048.20	Water Soluble Phosphate	
Lab	Spectrometric	
9	42.63	-3.813
9	42.44	-2.735
24	42.15	-1.133
31	42.13	-1.050
Std Dev	42.12	-1.000
61	42.09	-0.801
24	42.06	-0.663

23	41.99	-0.249
330	41.94	0.000
Median	41.94	0.000
23	41.93	0.083
14	41.90	0.249
79	41.87	0.387
14	41.86	0.442
61	41.84	0.580
Std Dev	41.76	1.000
220	41.63	1.707
140	41.63	1.741

048.99	Water Soluble Phosphate	
Lab	Other	
39	45.93	-5.160
Std Dev	42.82	-1.000
32	42.09	-0.027
Median	42.07	0.000
32	42.05	0.027
34	42.04	0.040

048.XX	Water Soluble Phosphate	
Lab	Total Method	
39	45.93	-22.913
9	42.63	-3.475
9	42.44	-2.327
Std Dev	42.21	-1.000
24	42.15	-0.618
31	42.13	-0.530
32	42.09	-0.295
61	42.09	-0.265
24	42.06	-0.118
32	42.05	-0.059
34	42.04	0.000
Median	42.04	0.000
23	41.99	0.324
330	41.94	0.589
23	41.93	0.677
14	41.90	0.854
Std Dev	41.87	1.000
79	41.87	1.001
14	41.86	1.060
61	41.84	1.207
220	41.63	2.409

140	41.63	2.444
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050.31	Soluble Potash	
Lab	Atomic Absorption(Citrate)	
107	0.24	0.000
Median	0.24	0.000

050.50	%K <sub>2</sub> O	Soluble Potash	
Lab		ICP(Oxalate)	
23	0.16	0.000	
99	0.16	0.000	
Median	0.16	0.000	
Std Dev	0.16	1.000	
23	0.16	2.680	

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

050.99	%K <sub>2</sub> O	Soluble Potash	
Lab		Other	
61	0.18	-1.791	
Std Dev	0.17	-1.000	
24	0.17	-0.972	
61	0.17	-0.972	
43	0.16	0.000	
Median	0.16	0.000	
43	0.16	0.069	
24	0.16	0.667	
Std Dev	0.16	1.000	
80	0.10	10.500	

050.XX	%K <sub>2</sub> O	Soluble Potash	
Lab		Total Method	
107	0.24	-9.533	
61	0.18	-1.493	
Std Dev	0.17	-1.000	
24	0.17	-0.823	
61	0.17	-0.823	
137	0.17	-0.823	
43	0.16	-0.028	
Median	0.16	0.000	
43	0.16	0.028	

23	0.16	0.517
24	0.16	0.517
99	0.16	0.517
Std Dev	0.16	1.000
23	0.16	1.187
80	0.10	8.557

060.00	Free Water	
Lab	Vacuum Oven	
220	2.25	-2.270
32	2.08	-1.340
Std Dev	2.01	-1.000
9	1.99	-0.893
32	1.99	-0.867
9	1.94	-0.631
24	1.89	-0.368
79	1.84	-0.105
24	1.82	0.000
Median	1.82	0.000
34	1.76	0.315
140	1.76	0.315
43	1.76	0.342
23	1.66	0.841
43	1.66	0.867
23	1.65	0.920
Std Dev	1.63	1.000
31	1.49	1.734

060.10	Free Water	
Lab	Vacuum Desiccate	
61	1.82	-1.340
Std Dev	1.81	-1.000
Median	1.78	0.000
Std Dev	1.75	1.000
61	1.75	1.340

060.99	Free Water	
Lab	Other	
330	3.09	-2.537
Std Dev	2.49	-1.000
14	2.11	0.000
Median	2.11	0.000
14	2.06	0.143

060.XX Free Water		
Lab	Total Method	
330	3.09	-6.627
220	2.25	-2.228
14	2.11	-1.479
32	2.08	-1.294
14	2.06	-1.188
<b>Std Dev</b>	<b>2.02</b>	<b>-1.000</b>
9	1.99	-0.845
32	1.99	-0.819
9	1.94	-0.581
24	1.89	-0.317
79	1.84	-0.053
<b>Median</b>	<b>1.83</b>	<b>0.000</b>
24	1.82	0.053
61	1.82	0.053
34	1.76	0.370
140	1.76	0.370
43	1.76	0.396
61	1.75	0.449
23	1.66	0.898
43	1.66	0.924
23	1.65	0.977
<b>Std Dev</b>	<b>1.64</b>	<b>1.000</b>
31	1.49	1.795

101.00 Acid Soluble Calcium		
Lab	%CaO	Atomic Absorption
219	0.19	0.000
<b>Median</b>	<b>0.19</b>	<b>0.000</b>

101.30 Acid Soluble Calcium		
Lab	%CaO	ICP
32	0.35	-1.729
24	0.33	-1.210
24	0.33	-1.210
61	0.33	-1.210
<b>Std Dev</b>	<b>0.32</b>	<b>-1.000</b>
61	0.32	-0.865
23	0.31	-0.519
32	0.31	-0.519
14	0.30	-0.173
<b>Median</b>	<b>0.30</b>	<b>0.000</b>
14	0.29	0.173

23	0.29	0.173
34	0.29	0.173
9	0.29	0.346
9	0.28	0.519
31	0.28	0.519
43	0.27	0.783
43	0.27	0.909

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
32	0.35	-1.843
24	0.33	-1.340
24	0.33	-1.340
61	0.33	-1.340
61	0.32	-1.005
<b>Std Dev</b>	<b>0.32</b>	<b>-1.000</b>
23	0.31	-0.670
32	0.31	-0.670
14	0.30	-0.335
14	0.29	0.000
<b>Median</b>	<b>0.29</b>	<b>0.000</b>
23	0.29	0.000
34	0.29	0.000
9	0.29	0.168
9	0.28	0.335
31	0.28	0.335
43	0.27	0.591
43	0.27	0.713
<b>Std Dev</b>	<b>0.26</b>	<b>1.000</b>
219	0.19	3.518

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
219	0.74	0.000
<b>Median</b>	<b>0.74</b>	<b>0.000</b>

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
31	1.06	-4.154
<b>Std Dev</b>	<b>0.94</b>	<b>-1.000</b>
24	0.94	-0.938
32	0.93	-0.670
32	0.93	-0.536
24	0.92	-0.402

23	0.92	-0.268
23	0.92	-0.268
34	0.91	-0.134
<b>Median</b>	<b>0.91</b>	<b>0.000</b>
9	0.90	0.134
9	0.90	0.134
61	0.88	0.670
61	0.88	0.804
<b>Std Dev</b>	<b>0.87</b>	<b>1.000</b>
14	0.86	1.206
14	0.86	1.206
43	0.82	2.412
43	0.82	2.412

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
31	1.06	-3.573
<b>Std Dev</b>	<b>0.94</b>	<b>-1.000</b>
24	0.94	-0.893
32	0.93	-0.670
32	0.93	-0.558
24	0.92	-0.447
23	0.92	-0.335
23	0.92	-0.335
34	0.91	-0.223
9	0.90	0.000
9	0.90	0.000
<b>Median</b>	<b>0.90</b>	<b>0.000</b>
61	0.88	0.447
61	0.88	0.558
14	0.86	0.893
14	0.86	0.893
<b>Std Dev</b>	<b>0.86</b>	<b>1.000</b>
43	0.82	1.898
43	0.82	1.898
219	0.74	3.518

144..01 Sulfate Sulfur (S)		
Lab	Gravimetric	
220	1.56	-0.657
241	1.53	0.000
<b>Median</b>	<b>1.53</b>	<b>0.000</b>
<b>Std Dev</b>	<b>1.48</b>	<b>1.000</b>
79	1.43	2.023

144.70 Sulfur		
Lab	Spectrometric	
14	1.50	-1.340
<b>Std Dev</b>	<b>1.50</b>	<b>-1.000</b>
<b>Median</b>	<b>1.49</b>	<b>0.000</b>
<b>Std Dev</b>	<b>1.48</b>	<b>1.000</b>
14	1.48	1.340

144.99 Sulfate Sulfur (S)		
Lab	Other	
24	1.50	-1.819
24	1.48	-1.053
<b>Std Dev</b>	<b>1.48</b>	<b>-1.000</b>
32	1.47	-0.670
23	1.46	-0.096
23	1.46	-0.096
<b>Median</b>	<b>1.45</b>	<b>0.000</b>
9	1.45	0.096
34	1.45	0.096
<b>Std Dev</b>	<b>1.43</b>	<b>1.000</b>
9	1.43	1.053
32	1.42	1.436
31	1.36	3.733

144.XX Sulfate Sulfur (S)		
Lab	Total Method	
220	1.56	-2.881
241	1.53	-2.010
14	1.50	-1.206
24	1.50	-1.206
<b>Std Dev</b>	<b>1.49</b>	<b>-1.000</b>
14	1.48	-0.670
24	1.48	-0.670
32	1.47	-0.402
23	1.46	0.000
23	1.46	0.000
<b>Median</b>	<b>1.46</b>	<b>0.000</b>
9	1.45	0.134
34	1.45	0.134
79	1.43	0.670
9	1.43	0.804
<b>Std Dev</b>	<b>1.42</b>	<b>1.000</b>
32	1.42	1.072



31	1.36	2.680
<b>145.99 Total Sulfur (S)</b>		
Lab	Other	
330	1.93	-2.319
Std Dev	1.71	-1.000
43	1.54	0.000
Median	1.54	0.000
43	1.48	0.361
<b>145.XX Total Sulfur (S)</b>		
Lab	Total Method	
330	1.93	-2.319
Std Dev	1.71	-1.000
43	1.54	0.000
Median	1.54	0.000
43	1.48	0.361
<b>151.30 Total Arsenic</b>		
Lab	ICP	
43	13.40	-2.115
43	13.05	-1.553
Std Dev	12.71	-1.000
31	12.70	-0.992
24	12.10	-0.029
Median	12.08	0.000
275	12.06	0.029
61	12.00	0.132
64	11.81	0.437
275	11.81	0.444
<b>151.99 Total Arsenic</b>		
Lab	Other	
18	13.25	-1.340
Std Dev	13.24	-1.000
Median	13.23	0.000
Std Dev	13.21	1.000
18	13.20	1.340
<b>151.XX Total Arsenic</b>		
Lab	Total Method	
43	13.40	-1.169
Std Dev	13.26	-1.000
18	13.25	-0.993

18	13.20	-0.935
43	13.05	-0.760
31	12.70	-0.351
Median	12.40	0.000
24	12.10	0.351
275	12.06	0.393
61	12.00	0.468
64	11.81	0.690
275	11.81	0.695
<b>165.99 Acid Soluble Boron</b>		
Lab	PPM	Other
24	36.50	0.000
Median	36.50	0.000
<b>165.XX, ppm Acid Soluble Boron</b>		
Lab	PPM	Total Method
24	36.50	0.000
Median	36.50	0.000
<b>181.00 Total Cadmium</b>		
Lab	Atomic Absorbtion	
330	4.00	0.000
Median	4.00	0.000
<b>181.30 Total Cadmium</b>		
Lab	PPM	ICP
18	3.60	-1.351
18	3.50	-1.126
Std Dev	3.44	-1.000
64	3.38	-0.856
61	3.00	0.000
61	3.00	0.000
Median	3.00	0.000
275	2.92	0.188
43	2.79	0.484
275	2.77	0.513
43	2.70	0.676
<b>181.99 Total Cadmium</b>		
Lab	Total Method	Other
24	3.58	0.000
Median	3.58	0.000

<b>181.XX Total Cadmium</b>		
Lab	PPM	Total Method
330	4.00	-1.944
18	3.60	-1.166
24	3.58	-1.128
Std Dev	3.51	-1.000
18	3.50	-0.972
64	3.38	-0.739
61	3.00	0.000
61	3.00	0.000
Median	3.00	0.000
275	2.92	0.162
43	2.79	0.418
275	2.77	0.443
43	2.70	0.583
<b>190.00 Aluminum</b>		
Lab	%Al <sub>2</sub> O <sub>3</sub>	ICP
9	1.57	-1.210
9	1.57	-1.124
14	1.56	-1.037
Std Dev	1.56	-1.000
14	1.56	-0.951
24	1.54	-0.692
32	1.54	-0.692
34	1.51	-0.173
23	1.50	0.000
Median	1.50	0.000
23	1.50	0.086
24	1.49	0.173
61	1.48	0.346
43	1.46	0.692
43	1.46	0.778
32	1.45	0.865
Std Dev	1.44	1.000
61	1.43	1.297
<b>190.99 Aluminum</b>		
Lab	%Al <sub>2</sub> O <sub>3</sub>	Atomic Absorption
31	1.57	-1.340
Std Dev	1.41	-1.000
Median	0.95	0.000
Std Dev	0.48	1.000
330	0.33	1.340

<b>190.XX Aluminum</b>		
Lab	%Al <sub>2</sub> O <sub>3</sub>	Total Method
9	1.57	-0.987
31	1.57	-0.987
9	1.57	-0.917
14	1.56	-0.846
14	1.56	-0.776
24	1.54	-0.564
32	1.54	-0.564
34	1.51	-0.141
23	1.50	0.000
Median	1.50	0.000
23	1.50	0.071
24	1.49	0.141
61	1.48	0.282
43	1.46	0.564
43	1.46	0.635
32	1.45	0.705
Std Dev	1.43	1.000
61	1.43	1.058
330	0.33	16.574
<b>191.00 Total Chromium</b>		
Lab	Atomic Absorbtion	
330	43.00	0.000
Median	43.00	0.000
<b>191.30 Total Chromium</b>		
Lab	ICP	
31	87.40	-4.809
Std Dev	78.07	-1.000
61	78.00	-0.970
64	77.38	-0.715
18	75.95	-0.133
Median	75.63	0.000
18	75.30	0.133
61	74.50	0.459
43	73.50	0.868
Std Dev	73.18	1.000
43	73.00	1.072
<b>191.99 Total Chromium</b>		
Lab	PPM	Other

24	80.60	0.000
Median	80.60	0.000

191.XX Total Chromium		
Lab	PPM	Total Method
31	87.40	-3.854
24	80.60	-1.628
Std Dev	78.68	-1.000
61	78.00	-0.777
64	77.38	-0.573
18	75.95	-0.106
Median	75.63	0.000
18	75.30	0.106
61	74.50	0.368
43	73.50	0.696
43	73.00	0.859
Std Dev	72.57	1.000
330	43.00	10.679

202.30 Acid Soluble Cobalt		
Lab	PPM	ICP
43		

202.99 Acid Soluble Cobalt		
Lab		Other
64	2.97	-1.340
Std Dev	2.92	-1.000
Median	2.77	0.000
Std Dev	2.61	1.000
24	2.56	1.340

202.XX Acid Soluble Cobalt		
Lab	PPM	Total Method
43	3.00	-0.042
43	3.00	-0.042
61	3.00	-0.042
61	3.00	-0.042
Median	2.99	0.000
64	2.97	0.042
Std Dev	2.63	1.000
24	2.56	1.186
18	2.40	1.633
18	2.40	1.633

221.00 Acid Soluble Copper		
Lab		Atomic Absorption
219	1.35	0.000
Median	1.35	0.000

221.30 Acid Soluble Copper		
Lab	PPM	ICP
61	<0.4	0.000
61	<0.4	0.000
18	<0.1	0.000
18	<0.1	0.000
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000

221.99 Acid Soluble Copper		
Lab		Other
24	1.64	0.000
Median	1.64	0.000

221.XX Acid Soluble Copper		
Lab	PPM	Total Method
61	<0.4	0.000
61	<0.4	0.000
18	<0.1	0.000
18	<0.1	0.000
24	1.64	-2.680
Std Dev	1.24	-1.000
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000

241.30 Acid Soluble Iron		
Lab	%Fe <sub>2</sub> O <sub>3</sub>	ICP
43	1.42	-3.007
24	1.37	-1.830
Std Dev	1.34	-1.000
24	1.33	-0.784
32	1.33	-0.784
34	1.33	-0.784
32	1.32	-0.392
23	1.31	-0.131
23	1.31	-0.131
Median	1.30	0.000

14	1.30	0.131
14	1.30	0.131
9	1.29	0.261
9	1.29	0.392
Std Dev	1.26	1.000
61	1.26	1.046
31	1.26	1.177
43	1.26	1.177
61	1.25	1.307

241.XX Acid Soluble Iron		
Lab	%Fe <sub>2</sub> O <sub>3</sub>	Total Method
43	1.42	-3.276
24	1.37	-1.936
219	1.35	-1.370
Std Dev	1.34	-1.000
24	1.33	-0.744
32	1.33	-0.744
34	1.33	-0.744
32	1.32	-0.298
23	1.31	0.000
23	1.31	0.000
Median	1.31	0.000
14	1.30	0.298
14	1.30	0.298
9	1.29	0.447
9	1.29	0.596
Std Dev	1.27	1.000
61	1.26	1.340
31	1.26	1.489
43	1.26	1.489
61	1.25	1.638

251.30 Total Lead		
Lab	PPM	ICP
61	<1.8	0.000
61	<1.8	0.000
18	2.95	-1.675
18	2.65	-1.417
Std Dev	2.16	-1.000
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000
275	0.57	0.369

275	0.50	0.429
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251.99 Total Lead		
Lab		Other
24	1.28	0.000
Median	1.28	0.000

251.XX Total Lead		
Lab	PPM	Total Method
61	<1.8	0.000
61	<1.8	0.000
18	2.95	-2.214
18	2.65	-1.874
Std Dev	1.88	-1.000
24	1.28	-0.318
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000
275	0.57	0.488
275	0.50	0.568

261.30 Acid Soluble Manganese		
Lab		ICP
31	313.05	0.000
Median	313.05	0.000

261.99 Acid Soluble Manganese		
Lab	PPM	Other
43	334.00	-0.991
43	334.00	-0.991
24	328.00	-0.270
61	328.00	-0.270
Median	325.75	0.000
61	323.50	0.270
219	321.60	0.499
Std Dev	317.43	1.000
18	308.60	2.061
18	306.55	2.307

261.XX Acid Soluble Manganese		
Lab	PPM	Total Method
43	334.00	-0.941
43	334.00	-0.941
24	328.00	-0.403

61	328.00	-0.403
61	323.50	0.000
Median	323.50	0.000
219	321.60	0.170
31	313.05	0.937
Std Dev	312.34	1.000
18	308.60	1.336
18	306.55	1.519

281.30 Total Mercury		
Lab	PPM	ICP
24	0.54	0.000
Median	0.54	0.000

281.XX Total Mercury		
Lab	PPM	Total Method
24	0.54	0.000
Median	0.54	0.000

289.30 Total Molybdenum		
Lab	PPM	ICP
18		

289.99 Total Molybdenum		
Lab	PPM	Other
24	13.30	0.000
Median	13.30	0.000

289.XX Total Molybdenum		
Lab	PPM	Total Method
24	13.30	-1.180
Std Dev	13.09	-1.000
18	12.85	-0.800
18	12.80	-0.758
64	12.41	-0.424
Median	11.90	0.000
43	11.40	0.424
43	11.30	0.509
61	11.00	0.762
Std Dev	10.72	1.000
61	10.50	1.184

291.30 Total Nickel		
Lab		ICP
61		

291.99 Total Nickel		
Lab	PPM	Other
24	13.10	0.000
Median	13.10	0.000

291.XX Total Nickel		
Lab	PPM	Total Method
24	13.10	-3.973
61	12.00	-1.198
Std Dev	11.92	-1.000
64	11.88	-0.883
18	11.55	-0.063
Median	11.53	0.000
18	11.50	0.063
61	11.50	0.063
Std Dev	11.13	1.000
43	11.00	1.324
43	11.00	1.324

301.30 Total Selenium		
Lab	PPM	ICP
18	3.20	-0.296
18	2.90	0.000
Median	2.90	0.000
Std Dev	1.89	1.000
24	0.48	2.384

301.99 Total Selenium		
Lab	PPM	Other
61	2.50	0.000
Median	2.50	0.000

301.XX Total Selenium		
Lab	PPM	Total Method
18	3.20	-0.684
18	2.90	-0.273
Median	2.70	0.000
61	2.50	0.273
Std Dev	1.97	1.000
24	0.48	3.036

311.00 Sodium		
Lab	%Na <sub>2</sub> O	Atomic Absorbtion
330	0.95	0.000

Median	0.95	0.000
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311.99 Sodium		
Lab	%Na <sub>2</sub> O	Other
24	0.24	-1.609
Std Dev	0.23	-1.000
24	0.23	-0.965
61	0.22	-0.322
23	0.22	0.000
23	0.22	0.000
Median	0.22	0.000
61	0.21	0.322
Std Dev	0.20	1.000
43	0.18	2.464
43	0.18	2.507

311.XX Sodium		
Lab	%Na <sub>2</sub> O	Total Method
330	0.95	-48.910
24	0.24	-1.675
24	0.23	-1.005
Std Dev	0.23	-1.000
61	0.22	-0.335
23	0.22	0.000
23	0.22	0.000
Median	0.22	0.000
61	0.21	0.335
Std Dev	0.20	1.000
43	0.18	2.564
43	0.18	2.610

321.30 Acid Soluble Zinc		
Lab	PPM	ICP
64	101.37	-15.630
Std Dev	59.60	-1.000
24	58.20	-0.508
61	57.00	-0.088
18	56.75	0.000
Median	56.75	0.000
61	55.00	0.613
Std Dev	53.90	1.000
18	52.55	1.471
47	1.02	19.525

321.99 Acid Soluble Zinc		
Lab		Other
43	48.00	0.000
43	48.00	0.000
Median	48.00	0.000

321.XX Acid Soluble Zinc		
Lab	PPM	Total Method
64	101.37	-6.903
Std Dev	61.72	-1.000
24	58.20	-0.476
61	57.00	-0.298
18	56.75	-0.261
61	55.00	0.000
Median	55.00	0.000
18	52.55	0.365
Std Dev	48.28	1.000
43	48.00	1.042
43	48.00	1.042
47	1.02	8.037

325.10 Fluoride		
Lab	%	Electrode
32	2.08	-1.340
275	2.07	-1.196
23	2.06	-0.861
23	2.05	-0.670
24	2.04	-0.574
32	2.03	-0.383
14	2.01	0.000
34	2.01	0.000
79	2.01	0.000
Median	2.01	0.000
14	1.98	0.670
24	1.97	0.766
275	1.90	2.154
31	1.84	3.254

325.30 Fluoride		
Lab		Distilled/Electrode
220	2.08	0.000
Median	2.08	0.000

325.99		Fluoride
Lab	%	Other
330	2.31	-4.499
9	2.12	-0.861
61	2.07	0.000
Median	2.07	0.000
61	2.05	0.479
9	2.00	1.436

325.XX		Fluoride
Lab	%	Total Method
330	2.31	-5.165
9	2.12	-1.462
32	2.08	-0.780
220	2.08	-0.760
275	2.07	-0.633
61	2.07	-0.585
23	2.06	-0.292
23	2.05	-0.097
61	2.05	-0.097
24	2.04	0.000
Median	2.04	0.000
32	2.03	0.195
14	2.01	0.585
34	2.01	0.585
79	2.01	0.585
9	2.00	0.877
14	1.98	1.267
24	1.97	1.364
275	1.90	2.777
31	1.84	3.898