

## AFPC

2016-03

Grade

18-46-0

	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
<b>AMMONIACAL NITROGEN</b>					
Ammoniacal Nitrogen, Other		001.99	8	17.51	0.03
Method Group 001.XX PCT			8	17.51	0.04
<b>NITROGEN FROM UREA</b>					
Nitrogen from Urea, Other		005.99	1	0.29	0.00
Method Group 005.XX PCT			1	0.29	0.00
<b>TOTAL NITROGEN</b>					
Total Nitrogen, Modified Comprehensive	978.02	010.11	3	17.68	0.02
Total Nitrogen, Salicylic	955.04d	010.12	1	17.48	0.00
Total Nitrogen, Combustion	993.13	010.60	20	17.73	0.19
Total Nitrogen, Other		010.99	4	17.63	0.13
Method Group 010.XX PCT			28	17.69	0.16
<b>TOTAL PHOSPHATE</b>					
Total Phosphate, Gravimetric Quimociac		020.10	2	46.80	0.12
Total Phosphate, Spectrometric	978.02	020.20	19	46.64	0.14
Total Phosphate, ICP	970.03	020.40	2	46.80	0.01
Total Phosphate, Other	993.13	020.99	1	47.10	0.00
Method Group 020.XX PCT			24	46.65	0.21
<b>INSOLUBLE PHOSPHATE</b>					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	7	0.15	0.03
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.23	0.00
Insoluble Phosphate, Automated	978.01	030.40	2	0.20	0.02
Insoluble Phosphate, Other		030.99	2	0.12	0.00
Method Group 030.XX PCT			12	0.15	0.05
<b>INDIRECT AVAILABLE PHOSPHATE</b>					
Indirect Available Phosphate, Spectrometric	960.02	040.20	9	46.40	0.24
Indirect Available Phosphate, Automated	960.02	040.40	1	46.59	0.00
Indirect Available Phosphate, Other		040.99	1	46.43	0.00
Method Group 040.XX PCT			11	46.43	0.28
<b>DIRECT AVAILABLE PHOSPHATE</b>					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	3	46.61	0.34
Direct Available Phosphate, Spectrometric	960.03D	041.20	1	47.39	0.00

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Direct Available Phosphate, ICP	978.01	041.40	2	46.53	0.41
Direct Available Phosphate, ICP		041.50	2	46.03	0.17
Direct Available Phosphate, EDTA Extract	993.01	041.60	5	46.43	0.22
Direct Available Phosphate, Other		041.99	2	46.55	0.05
Method Group 041.XX PCT			15	46.47	0.53
<b>WATER SOLUBLE PHOSPHATE</b>					
Water Soluble Phosphate, Spectrometric	970.01	048.20	12	41.71	0.23
Water Soluble Phosphate, Other		048.99	5	41.33	0.64
Method Group 048.XX PCT			17	41.65	0.39
<b>SOLUBLE POTASH AS K<sub>2</sub>O</b>					
Soluble Potash, ICP(Oxalate)		050.50	2	0.22	0.00
Soluble Potash, Other		050.99	7	0.22	0.01
Method Group 050.XX PCT			9	0.22	0.00
<b>FREE WATER</b>					
Free Water, Vacuum Oven	965.08B	060.00	12	2.22	0.14
Free Water, Vacuum Desiccate	965.08A	060.10	2	2.65	0.08
Free Water, Other		060.99	3	2.17	0.19
Method Group 060.XX PCT			17	2.24	0.26
<b>ACID SOLUBLE CALCIUM AS CaO</b>					
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.05	0.00
Acid Soluble Calcium, ICP		101.30	17	0.11	0.03
Method Group 101.XX PCT			18	0.11	0.04
<b>ACID SOLUBLE MAGNESIUM AS MgO</b>					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	1.25	0.00
Acid Soluble Magnesium, ICP		121.30	17	1.26	0.06
Method Group 121.XX PCT			18	1.26	0.07
<b>SULFATE SULFUR (S)</b>					
Sulfur, Gravimetric	980.02(a)	144.01	1	2.15	0.00
Sulfur, Spectrometric		144.70	2	2.22	0.01
Sulfur, Other		144.99	13	2.24	0.04
Method Group 144.XX PCT			16	2.24	0.03
<b>TOTAL SULFUR (S)</b>					
Sulfur, Other		145.99	3	2.19	0.2
Method Group 145.XX PCT			3	2.19	0.3
<b>TOTAL ARSENIC</b>					
Total Arsenic, ICP	980.02(b)	151.02	5	12.1	0.8
Method Group 151.XX PPM			5	12.1	1.0
<b>ACID SOLUBLE BORON</b>					

Acid Soluble Cadmium		165.99	1	68	0.0
Method Group 165.XX PPM			1	68	0.0
<b>TOTAL CADMIUM</b>					
Total Cadmium, ICP		181.30	7	23.0	1.6
Total Cadmium, Other		181.99	1	21.0	0.0
Method Group 181.XX PPM			8	22.4	2.1
<b>ALUMINUM AS Al<sub>2</sub>O<sub>3</sub></b>					
ICP, %			16	1.32	0.05
Water Soluble Chlorine, Other, %		190.99	2	0.95	0.46
Method Group 190.XX PCT			18	1.32	0.06
<b>TOTAL CHROMIUM</b>					
Total Chromium, ICP		191.30	6	186	6.6
Total Chromium, Other		191.99	1	186	0.0
Method Group 191.XX PPM			7	186	6.1
<b>ACID SOLUBLE COBALT</b>					
Acid Soluble Cobalt, ICP		202.30	4	3	0.2
Acid Soluble Cobalt, Other		202.99	2	2	0.3
Method Group 202.XX PPM			6	3	0.6
<b>ACID SOLUBLE COPPER</b>					
Acid Soluble Copper, ICP		221.30	5	3.0	1.6
Acid Soluble Copper, Other		221.99	1	5.0	0.0
Method Group 221.XX PPM			6	4.0	2.1
<b>ACID SOLUBLE IRON AS Fe<sub>2</sub>O<sub>3</sub></b>					
Acid Soluble Iron, ICP		241.30	17	1.23	0.03
Method Group 241.XX PCT			18	1.23	0.03
<b>TOTAL LEAD</b>					
Total Lead, ICP		251.30	4	1	0.3
Total Lead, Other		251.99	1	0.1	0.0
Method Group 251.XX PPM			5	1	0.4
<b>ACID SOLUBLE MANGANESE</b>					
Acid Soluble Manganese, ICP		972.02a 261.30	1	313	0.0
Acid Soluble Manganese, Other		261.99	6	233	9.6
Method Group 261.XX PPM			7	239	11.7
<b>TOTAL MERCURY</b>					
Total Mercury, ICP		281.30	1	0.00	0.00
Method Group 281.XX PPM			1	0.06	0.00
<b>TOTAL MOLYBDENUM</b>					
Total Molybdenum, ICP		289.30	5	11	0.3

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Total Molybdenum, Other	289.99	1	13	0.0
Method Group 289.XX PPM		6	11	0.7
<b>TOTAL NICKEL</b>				
Total Nickel, ICP	291.30	5	16.1	0.4
Total Nickel, icp	291.99	1	16.0	0.0
Method Group 291.XX PPM		6	16.1	0.4
<b>TOTAL SELENIUM</b>				
Total Selenium, ICP	301.30	1	0.7	0.0
Method Group 301.XX PPM		1	0.7	0.0
<b>SODIUM AS Na<sub>2</sub>O</b>				
Sodium, Other	311.99	8	0.33	0.02
Method Group 311.XX PCT		8	0.33	0.02
<b>ACID SOLUBLE ZINC</b>				
Acid Soluble Zinc, Atomic Absorption	975.02 321.00	1	111.0	0.0
Acid Soluble Zinc, ICP	321.30	4	109.3	6.0
Acid Soluble Zinc, Other	321.99	2	102.8	0.2
Method Group 321.XX %		7	106.0	8.1
<b>FLUORIDE</b>				
Volumetric	325.10	11	0.59	0.04
Distilled/Electrode	325.99	4	0.61	0.01
Method Group 325.XX PCT		15	0.59	0.05

001.99 Ammoniacal Nitrogen		
Lab		Other
310	17.59	-2.680
24	17.55	-1.261
<b>Std Dev</b>	<b>17.54</b>	<b>-1.000</b>
24	17.53	-0.788
32	17.51	-0.158
<b>Median</b>	<b>17.51</b>	<b>0.000</b>
32	17.50	0.158
34	17.50	0.158
<b>Std Dev</b>	<b>17.47</b>	<b>1.000</b>
79	17.47	1.261
38	16.82	21.661

001.XX Ammoniacal Nitrogen		
Lab		Total Method
310	17.59	-2.680
24	17.55	-1.261
<b>Std Dev</b>	<b>17.54</b>	<b>-1.000</b>
24	17.53	-0.788
32	17.51	-0.158
<b>Median</b>	<b>17.51</b>	<b>0.000</b>
32	17.50	0.158
34	17.50	0.158
<b>Std Dev</b>	<b>17.47</b>	<b>1.000</b>
79	17.47	1.261
38	16.82	21.661

005.99 Nitrogen from Urea		
Lab		Other
38	0.29	0.000
<b>Median</b>	<b>0.29</b>	<b>0.000</b>

005.XX Nitrogen from Urea		
Lab		Total Method
38	0.29	0.000
<b>Median</b>	<b>0.29</b>	<b>0.000</b>

010.11 Total Nitrogen		
Lab		Modified Comprehensive
43	17.71	-1.237
<b>Std Dev</b>	<b>17.70</b>	<b>-1.000</b>
219	17.68	0.000
<b>Median</b>	<b>17.68</b>	<b>0.000</b>

<b>Std Dev</b>	<b>17.65</b>	<b>1.000</b>
43	17.64	1.443

010.12 Total Nitrogen		
Lab		Salicylic
107	17.48	0.000
<b>Median</b>	<b>17.48</b>	<b>0.000</b>

010.60 Total Nitrogen		
Lab		Combustion
47	18.16	-2.293
80	18.00	-1.467
14	17.96	-1.253
49	17.95	-1.173
<b>Std Dev</b>	<b>17.91</b>	<b>-1.000</b>
14	17.90	-0.907
29	17.87	-0.773
24	17.80	-0.400
66	17.78	-0.267
31	17.75	-0.133
24	17.73	-0.027
<b>Median</b>	<b>17.73</b>	<b>0.000</b>
219	17.72	0.027
39	17.67	0.312
9	17.65	0.400
79	17.64	0.453
61	17.63	0.507
61	17.61	0.613
64	17.60	0.667
<b>Std Dev</b>	<b>17.54</b>	<b>1.000</b>
77	17.53	1.040
103	17.44	1.547
110	17.40	1.760

010.99 Total Nitrogen		
Lab		Other
32	17.72	-0.675
32	17.71	-0.636
<b>Median</b>	<b>17.63</b>	<b>0.000</b>
23	17.55	0.636
23	17.52	0.868

010.11 Total Nitrogen		
Lab		Total Method
43	17.71	-1.237
<b>Std Dev</b>	<b>17.70</b>	<b>-1.000</b>
219	17.68	0.000
<b>Median</b>	<b>17.68</b>	<b>0.000</b>

010.XX Total Nitrogen		
Lab		Total Method
43	17.71	-1.237
<b>Std Dev</b>	<b>17.70</b>	<b>-1.000</b>
219	17.68	0.000
<b>Median</b>	<b>17.68</b>	<b>0.000</b>

47	18.16	-3.586
80	18.00	-2.391
14	17.96	-2.082
49	17.95	-1.967
14	17.90	-1.581
29	17.87	-1.388
<b>Std Dev</b>	<b>17.82</b>	<b>-1.000</b>
24	17.80	-0.848
66	17.78	-0.656
31	17.75	-0.463
24	17.73	-0.308
219	17.72	-0.231
32	17.72	-0.193
32	17.71	-0.154
43	17.71	-0.116
<b>Median</b>	<b>17.69</b>	<b>0.000</b>
219	17.68	0.116
39	17.67	0.181
9	17.65	0.308
43	17.64	0.386
79	17.64	0.386
61	17.63	0.463
61	17.61	0.617
64	17.60	0.694
<b>Std Dev</b>	<b>17.56</b>	<b>1.000</b>
23	17.55	1.118
77	17.53	1.234
23	17.52	1.350
107	17.48	1.620
103	17.44	1.967
110	17.40	2.275

020.10 Total Phosphate		
Lab		Gravimetric Quimociac
219	46.97	-1.340
<b>Std Dev</b>	<b>46.92</b>	<b>-1.000</b>
<b>Median</b>	<b>46.80</b>	<b>0.000</b>
<b>Std Dev</b>	<b>46.68</b>	<b>1.000</b>
310	46.64	1.340

020.20 Total Phosphate		
Lab		Spectrometric
31	47.28	-4.455
110	47.03	-2.715

275	46.94	-2.088
275	46.80	-1.149
<b>Std Dev</b>	<b>46.78</b>	<b>-1.000</b>
24	46.76	-0.835
24	46.73	-0.661
61	46.71	-0.487
43	46.66	-0.139
32	46.64	0.000
32	46.64	0.000
<b>Median</b>	<b>46.64</b>	<b>0.000</b>
14	46.62	0.139
34	46.59	0.313
43	46.58	0.418
14	46.57	0.452
61	46.53	0.731
9	46.51	0.870
<b>Std Dev</b>	<b>46.49</b>	<b>1.000</b>
79	46.45	1.323
23	46.43	1.462
23	46.19	3.132

020.40 Total Phosphate		
Lab		Automated
9	46.82	-1.340
<b>Std Dev</b>	<b>46.81</b>	<b>-1.000</b>
<b>Median</b>	<b>46.80</b>	<b>0.000</b>
<b>Std Dev</b>	<b>46.79</b>	<b>1.000</b>
219	46.79	1.340

020.99 Total Phosphate		
Lab		Other
330	47.10	0.000
<b>Median</b>	<b>47.10</b>	<b>0.000</b>

020.XX Total Phosphate		
Lab		Total Method
31	47.28	-3.656
330	47.10	-2.636
110	47.03	-2.199
219	46.97	-1.850
275	46.94	-1.675
<b>Std Dev</b>	<b>46.82</b>	<b>-1.000</b>
9	46.82	-0.976
275	46.80	-0.888

219	46.79	-0.830
24	46.76	-0.626
24	46.73	-0.481
61	46.71	-0.335
43	46.66	-0.044
<b>Median</b>	<b>46.65</b>	<b>0.000</b>
310	46.64	0.044
32	46.64	0.073
32	46.64	0.073
14	46.62	0.189
34	46.59	0.335
43	46.58	0.422
14	46.57	0.452
61	46.53	0.685
9	46.51	0.801
<b>Std Dev</b>	<b>46.48</b>	<b>1.000</b>
79	46.45	1.180
23	46.43	1.296
23	46.19	2.695

030.20 Insoluble Phosphate Spectrometric		
Lab		
79	0.21	-2.144
61	0.19	-1.429
<b>Std Dev</b>	<b>0.17</b>	<b>-1.000</b>
23	0.16	-0.357
23	0.15	0.000
<b>Median</b>	<b>0.15</b>	<b>0.000</b>
61	0.14	0.357
24	0.13	0.536
24	0.13	0.536

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

030.40 Insoluble Phosphate Automated		
Lab		
9	0.23	-1.340
<b>Std Dev</b>	<b>0.22</b>	<b>-1.000</b>
<b>Median</b>	<b>0.20</b>	<b>0.000</b>
<b>Std Dev</b>	<b>0.18</b>	<b>1.000</b>
34	0.17	1.340

030.99 Insoluble Phosphate Other		
Lab		
32	0.12	0.000
32	0.12	0.000
<b>Median</b>	<b>0.12</b>	<b>0.000</b>

030.XX Insoluble Phosphate Total Method		
Lab		
31	0.23	-1.787
9	0.23	-1.675
79	0.21	-1.228
<b>Std Dev</b>	<b>0.19</b>	<b>-1.000</b>
61	0.19	-0.782
34	0.17	-0.447
23	0.16	-0.112
<b>Median</b>	<b>0.15</b>	<b>0.000</b>
23	0.15	0.112
61	0.14	0.335
24	0.13	0.447
24	0.13	0.447
32	0.12	0.782
32	0.12	0.782

040.20 Indirect Available Phosphate Spectrometric		
Lab		
31	47.05	-2.722
<b>Std Dev</b>	<b>46.63</b>	<b>-1.000</b>
24	46.63	-0.963
24	46.60	-0.858
61	46.52	-0.523
61	46.40	0.000
<b>Median</b>	<b>46.40</b>	<b>0.000</b>
9	46.29	0.461
23	46.28	0.482
79	46.24	0.649
<b>Std Dev</b>	<b>46.16</b>	<b>1.000</b>
23	46.03	1.528

040.40 Indirect Available Phosphate Automated		
Lab		
9	46.59	0.000
<b>Median</b>	<b>46.59</b>	<b>0.000</b>

040.99 Indirect Available Phosphate Other		
Lab		
34	46.43	0.000
<b>Median</b>	<b>46.43</b>	<b>0.000</b>

040.XX Indirect Available Phosphate Total Method		
Lab		
31	47.05	-2.637
<b>Std Dev</b>	<b>46.66</b>	<b>-1.000</b>
24	46.63	-0.836
24	46.60	-0.729
9	46.59	-0.686
61	46.52	-0.386
34	46.43	0.000
<b>Median</b>	<b>46.43</b>	<b>0.000</b>
61	46.40	0.150
9	46.29	0.622
23	46.28	0.643
79	46.24	0.815
<b>Std Dev</b>	<b>46.20</b>	<b>1.000</b>
23	46.03	1.715

041.10 Direct Available Phosphate Gravimetric Quimociac		
Lab		
47	47.29	-1.966
<b>Std Dev</b>	<b>46.95</b>	<b>-1.000</b>
219	46.61	0.000
<b>Median</b>	<b>46.61</b>	<b>0.000</b>
39	46.37	0.714

041.20 Direct Available Phosphate Spectrometric		
Lab		
47	47.39	0.000
<b>Median</b>	<b>47.39</b>	<b>0.000</b>

041.40 Direct Available Phosphate Automated		
Lab		
38	47.09	-1.340
<b>Std Dev</b>	<b>46.95</b>	<b>-1.000</b>
<b>Median</b>	<b>46.53</b>	<b>0.000</b>
<b>Std Dev</b>	<b>46.12</b>	<b>1.000</b>
49	45.98	1.340

041.50 Direct Available Phosphate ICP		
Lab		
66	46.26	-1.340
<b>Std Dev</b>	<b>46.20</b>	<b>-1.000</b>
<b>Median</b>	<b>46.03</b>	<b>0.000</b>
<b>Std Dev</b>	<b>45.86</b>	<b>1.000</b>
80	45.80	1.340

041.60 Direct Available Phosphate EDTA Extract		
Lab		
29	47.14	-3.185
64	46.71	-1.228
<b>Std Dev</b>	<b>46.65</b>	<b>-1.000</b>
219	46.43	0.000
<b>Median</b>	<b>46.43</b>	<b>0.000</b>
77	46.41	0.112
<b>Std Dev</b>	<b>46.21</b>	<b>1.000</b>
103	44.38	9.157

041.99 Direct Available Phosphate Other		
Lab		
275	46.62	-1.340
<b>Std Dev</b>	<b>46.60</b>	<b>-1.000</b>
<b>Median</b>	<b>46.55</b>	<b>0.000</b>
<b>Std Dev</b>	<b>46.49</b>	<b>1.000</b>
275	46.47	1.340

041.XX Direct Available Phosphate Total Method		
Lab		
47	47.39	-2.097
47	47.29	-1.857
29	47.14	-1.533
38	47.09	-1.406
<b>Std Dev</b>	<b>46.91</b>	<b>-1.000</b>
64	46.71	-0.531
275	46.62	-0.333
219	46.61	-0.314
275	46.47	0.000
<b>Median</b>	<b>46.47</b>	<b>0.000</b>
219	46.43	0.097
77	46.41	0.154
39	46.37	0.246
66	46.26	0.497
<b>Std Dev</b>	<b>46.04</b>	<b>1.000</b>

49	45.98	1.126
80	45.80	1.537
103	44.38	4.783

048.20 Water Soluble Phosphate Spectrometric		
Lab		
31	42.13	-1.808
9	42.06	-1.507
<b>Std Dev</b>	<b>41.94</b>	<b>-1.000</b>
14	41.90	-0.796
14	41.89	-0.775
61	41.75	-0.172
61	41.72	-0.043
<b>Median</b>	<b>41.71</b>	<b>0.000</b>
23	41.70	0.043
79	41.70	0.065
23	41.65	0.258
<b>Std Dev</b>	<b>41.48</b>	<b>1.000</b>
24	41.37	1.464
24	41.24	2.023
330	38.60	13.389

048.99 Water Soluble Phosphate Other		
Lab		
34	41.60	-0.429
32	41.35	-0.039
32	41.33	0.000
<b>Median</b>	<b>41.33</b>	<b>0.000</b>
<b>Std Dev</b>	<b>40.68</b>	<b>1.000</b>
275	40.49	1.301
275	40.25	1.683

048.XX Water Soluble Phosphate Total Method		
Lab		
31	42.13	-1.513
9	42.06	-1.293
<b>Std Dev</b>	<b>41.97</b>	<b>-1.000</b>
14	41.90	-0.772
14	41.89	-0.757
61	41.75	-0.315
61	41.72	-0.221
23	41.70	-0.158
79	41.70	-0.142
23	41.65	0.000

Median 41.65 0.000		
34	41.60	0.158
24	41.37	0.883
32	41.35	0.946
<b>Std Dev</b>	<b>41.33</b>	<b>1.000</b>
32	41.33	1.025
24	41.24	1.293
275	40.49	3.651
275	40.25	4.422
330	38.60	9.616

050.50 %K <sub>2</sub> O Soluble Potash ICP(Oxalate)		
Lab		
23	0.22	0.000
23	0.22	0.000
<b>Median</b>	<b>0.22</b>	<b>0.000</b>

050.99 Soluble Potash Other		
Lab	%K <sub>2</sub> O	
61	0.23	-1.093
61	0.23	-1.093
<b>Std Dev</b>	<b>0.23</b>	<b>-1.000</b>
43	0.22	-0.100
43	0.22	0.000
<b>Median</b>	<b>0.22</b>	<b>0.000</b>
24	0.22	0.284
<b>Std Dev</b>	<b>0.21</b>	<b>1.000</b>
24	0.21	1.203
80	0.15	6.254

050.XX Soluble Potash Total Method		
Lab	%K <sub>2</sub> O	
61	0.23	-2.900
61	0.23	-2.900
<b>Std Dev</b>	<b>0.22</b>	<b>-1.000</b>
23	0.22	-0.220
23	0.22	-0.220
43	0.22	0.000
<b>Median</b>	<b>0.22</b>	<b>0.000</b>
43	0.22	0.291
<b>Std Dev</b>	<b>0.22</b>	<b>1.000</b>
24	0.22	1.120
24	0.21	3.800
80	0.15	18.540

060.00 Free Water Vacuum Oven		
Lab		
32	2.47	-1.811
32	2.46	-1.738
<b>Std Dev</b>	<b>2.35</b>	<b>-1.000</b>
24	2.29	-0.543
24	2.27	-0.398
79	2.27	-0.362
34	2.24	-0.181
<b>Median</b>	<b>2.22</b>	<b>0.000</b>
23	2.19	0.181
9	2.18	0.254
43	2.10	0.833
<b>Std Dev</b>	<b>2.08</b>	<b>1.000</b>
23	2.06	1.123
43	2.06	1.123
31	1.49	5.251

060.10 Free Water Vacuum Desiccate		
Lab		
61	2.77	-1.340
<b>Std Dev</b>	<b>2.74</b>	<b>-1.000</b>
<b>Median</b>	<b>2.65</b>	<b>0.000</b>
<b>Std Dev</b>	<b>2.57</b>	<b>1.000</b>
61	2.54	1.340

060.99 Free Water Other		
Lab		
330	2.69	-2.654
<b>Std Dev</b>	<b>2.36</b>	<b>-1.000</b>
14	2.17	0.000
<b>Median</b>	<b>2.17</b>	<b>0.000</b>
14	2.17	0.026

060.XX Free Water Total Method		
Lab		
61	2.77	-2.426
330	2.69	-2.056
61	2.54	-1.386
32	2.47	-1.040
<b>Std Dev</b>	<b>2.46</b>	<b>-1.000</b>
32	2.46	-0.993
24	2.29	-0.231

24	2.27	-0.139
79	2.27	-0.116
34	2.24	0.000
<b>Median</b>	<b>2.24</b>	<b>0.000</b>
23	2.19	0.231
9	2.18	0.277
14	2.17	0.323
14	2.17	0.347
43	2.10	0.647
23	2.06	0.832
43	2.06	0.832
<b>Std Dev</b>	<b>2.02</b>	<b>1.000</b>
31	1.49	3.466

101.00 Acid Soluble Calcium Atomic Absorption		
Lab	%CaO	
219	0.05	0.000
<b>Median</b>	<b>0.05</b>	<b>0.000</b>

101.30 Acid Soluble Calcium ICP		
Lab	%CaO	
14	0.30	-5.619
31	0.28	-5.043
14	0.20	-2.594
61	0.15	-1.297
<b>Std Dev</b>	<b>0.14</b>	<b>-1.000</b>
61	0.14	-0.865
32	0.12	-0.432
34	0.12	-0.432
24	0.11	0.000
24	0.11	0.000
32	0.11	0.000
<b>Median</b>	<b>0.11</b>	<b>0.000</b>
23	0.09	0.432
275	0.09	0.448
275	0.09	0.475
23	0.09	0.576
43	0.08	0.804
43	0.08	0.818
9	0.08	0.865

101.XX Acid Soluble Calcium Total Method		
Lab	%CaO	
14	0.30	-5.759

31	0.28	-5.168
14	0.20	-2.658
61	0.15	-1.329
<b>Std Dev</b>	<b>0.14</b>	<b>-1.000</b>
61	0.14	-0.886
32	0.12	-0.443
34	0.12	-0.443
24	0.11	0.000
24	0.11	0.000
32	0.11	0.000
<b>Median</b>	<b>0.11</b>	<b>0.000</b>
23	0.09	0.443
275	0.09	0.459
275	0.09	-0.487
23	0.09	0.591
43	0.08	0.824
43	0.08	0.839
9	0.08	0.886
<b>Std Dev</b>	<b>0.07</b>	<b>1.000</b>
219	0.05	1.565

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
219	1.25	0.000
<b>Median</b>	<b>1.25</b>	<b>0.000</b>

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
61	1.35	-1.424
<b>Std Dev</b>	<b>1.32</b>	<b>-1.000</b>
32	1.30	-0.670
24	1.30	-0.586
34	1.29	-0.503
24	1.29	-0.419
32	1.28	-0.335
23	1.27	-0.084
23	1.26	0.000
61	1.26	0.000
<b>Median</b>	<b>1.26</b>	<b>0.000</b>
9	1.26	0.084
275	1.23	0.431
14	1.21	0.921
14	1.21	0.921
<b>Std Dev</b>	<b>1.20</b>	<b>1.000</b>

43	1.17	1.508
275	1.16	1.612
43	1.16	1.759
31	1.06	3.350

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
61	1.35	-1.489
<b>Std Dev</b>	<b>1.32</b>	<b>-1.000</b>
32	1.30	-0.723
24	1.30	-0.638
34	1.29	-0.553
24	1.29	-0.468
32	1.28	-0.383
23	1.27	-0.128
23	1.26	-0.043
61	1.26	-0.043
<b>Median</b>	<b>1.26</b>	<b>0.000</b>
9	1.26	0.043
219	1.25	0.085
275	1.23	0.396
14	1.21	0.893
14	1.21	0.893
<b>Std Dev</b>	<b>1.20</b>	<b>1.000</b>
43	1.17	1.489
275	1.16	1.595
43	1.16	1.744
31	1.06	3.361

144..01 Sulfate Sulfur (S)		
Lab		Gravimetric
79	2.15	0.000
<b>Median</b>	<b>2.15</b>	<b>0.000</b>

144.70 Sulfur		
Lab		Spectrometric
14	2.24	-1.340
<b>Std Dev</b>	<b>2.23</b>	<b>-1.000</b>
<b>Median</b>	<b>2.22</b>	<b>0.000</b>
<b>Std Dev</b>	<b>2.20</b>	<b>1.000</b>
14	2.20	1.340

144.99 Sulfate Sulfur (S)		
Lab		Other
14	2.20	1.340

32	2.32	-2.010
23	2.29	-1.206
32	2.29	-1.206
23	2.28	-1.072
<b>Std Dev</b>	<b>2.28</b>	<b>-1.000</b>
24	2.25	-0.268
275	2.25	-0.174
9	2.24	0.000
34	2.24	0.000
<b>Median</b>	<b>2.24</b>	<b>0.000</b>
24	2.23	0.268
61	2.23	0.268
275	2.23	0.335
<b>Std Dev</b>	<b>2.20</b>	<b>1.000</b>
61	2.05	5.092
31	1.36	23.718

144.XX Sulfate Sulfur (S)		
Lab		Total Method
32	2.32	-2.816
23	2.29	-1.726
32	2.29	-1.726
23	2.28	-1.544
<b>Std Dev</b>	<b>2.27</b>	<b>-1.000</b>
24	2.25	-0.454
275	2.25	-0.327
9	2.24	-0.091
34	2.24	-0.091
<b>Median</b>	<b>2.24</b>	<b>0.000</b>
14	2.24	0.091
24	2.23	0.273
61	2.23	0.273
275	2.23	0.363
<b>Std Dev</b>	<b>2.21</b>	<b>1.000</b>
14	2.20	1.363
79	2.15	3.180
61	2.05	6.814
31	1.36	32.069

145.99 Total Sulfur (S)		
Lab		Other
43	2.23	-0.157
43	2.19	0.000
<b>Median</b>	<b>2.19</b>	<b>0.000</b>

<b>Std Dev</b>	<b>1.94</b>	<b>1.000</b>
330	1.56	2.523

145.XX Total Sulfur (S)		
Lab		Total Method
43	2.23	-0.157
43	2.19	0.000
<b>Median</b>	<b>2.19</b>	<b>0.000</b>
<b>Std Dev</b>	<b>1.94</b>	<b>1.000</b>
330	1.56	2.523

151.30 Total Arsenic		
Lab		ICP
31	12.70	-0.806
43	12.05	0.000
43	12.05	0.000
<b>Median</b>	<b>12.05</b>	<b>0.000</b>
<b>Std Dev</b>	<b>11.24</b>	<b>1.000</b>
64	10.97	1.340
24	9.81	2.785

151.XX Total Arsenic		
Lab		Total Method
31	12.70	-0.806
43	12.05	0.000
43	12.05	0.000
<b>Median</b>	<b>12.05</b>	<b>0.000</b>
<b>Std Dev</b>	<b>11.24</b>	<b>1.000</b>
64	10.97	1.340
24	9.81	2.785

165.99 Acid Soluble Boron		
Lab	PPM	Other
24	68.00	0.000
<b>Median</b>	<b>68.00</b>	<b>0.000</b>

165.XX, ppm Acid Soluble Boron		
Lab	PPM	Total Method
24	68.00	0.000
<b>Median</b>	<b>68.00</b>	<b>0.000</b>

181.30 Total Cadmium		
Lab	PPM	ICP
275	24.53	-0.938



275	23.82	-0.503
61	23.00	0.000
61	23.00	0.000
Median	23.00	0.000
64	21.85	0.706
Std Dev	21.36	1.000
43	20.60	1.471
43	20.53	1.514

181.99		Total Cadmium
Lab		Other
24	21.00	0.000
Median	21.00	0.000

181.XX		Total Cadmium
Lab	PPM	Total Method
275	24.53	-1.226
Std Dev	24.14	-1.000
275	23.82	-0.813
61	23.00	-0.335
61	23.00	-0.335
Median	22.42	0.000
64	21.85	0.335
24	21.00	0.826
Std Dev	20.70	1.000
43	20.60	1.062
43	20.53	1.102

190.00		Aluminum
Lab	%Al <sub>2</sub> O <sub>3</sub>	ICP
275	1.60	-6.089
275	1.46	-3.012
9	1.37	-1.126
Std Dev	1.36	-1.000
14	1.36	-0.911
14	1.36	-0.804
32	1.33	-0.161
43	1.32	-0.054
61	1.32	-0.054
Median	1.32	0.000
43	1.32	0.054
24	1.31	0.268
34	1.30	0.375
24	1.30	0.482

23	1.29	0.590
32	1.29	0.590
61	1.29	0.590
23	1.29	0.697

190.99		Aluminum
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

190.XX		Aluminum
Lab	%Al <sub>2</sub> O <sub>3</sub>	Total Method
275	1.60	-5.638
31	1.57	-5.013
275	1.46	-2.789
9	1.37	-1.042
Std Dev	1.37	-1.000
14	1.36	-0.844
14	1.36	-0.744
32	1.33	-0.149
43	1.32	-0.050
61	1.32	-0.050
Median	1.32	0.000
43	1.32	0.050
24	1.31	0.248
34	1.30	0.347
24	1.30	0.447
23	1.29	0.546
32	1.29	0.546
61	1.29	0.546
23	1.29	0.645
Std Dev	1.27	1.000
330	0.33	19.703

191.30		Total Chromium
Lab		ICP
61	198.00	-1.864
61	195.00	-1.409
Std Dev	192.30	-1.000
64	186.89	-0.181
Median	185.70	0.000

43	184.50	0.181
43	184.00	0.257
Std Dev	179.09	1.000
31	87.40	14.887

191.99		Total Chromium
Lab	PPM	Other
24	186.00	0.000
Median	186.00	0.000

191.XX		Total Chromium
Lab	PPM	Total Method
61	198.00	-2.402
61	195.00	-1.801
Std Dev	191.00	-1.000
64	186.89	-0.178
24	186.00	0.000
Median	186.00	0.000
43	184.50	0.300
43	184.00	0.400
Std Dev	181.00	1.000
31	87.40	19.735

202.30		Acid Soluble Cobalt
Lab	PPM	ICP
43		

202.99		Acid Soluble Cobalt
Lab		Other
64	2.86	-1.340
Std Dev	2.76	-1.000
Median	2.48	0.000
Std Dev	2.19	1.000
24	2.10	1.340

202.XX		Acid Soluble Cobalt
Lab	PPM	Total Method
43	3.00	-0.131
43	3.00	-0.131
61	3.00	-0.131
Median	2.93	0.000
64	2.86	0.131
Std Dev	2.40	1.000
24	2.10	1.568
61	2.00	1.746

221.00		Acid Soluble Copper
Lab		Atomic Absorption
219	1.29	0.000
Median	1.29	0.000

221.30		Acid Soluble Copper
Lab	PPM	ICP
43	4.00	-0.631
43	4.00	-0.631
Median	3.00	0.000
61	2.00	0.631
61	1.50	0.946

221.99		Acid Soluble Copper
Lab		Other
24	5.04	0.000
Median	5.04	0.000

221.XX		Acid Soluble Copper
Lab	PPM	Total Method
219	5.86	-1.090
Std Dev	5.70	-1.000
24	5.04	-0.611
43	4.00	0.000
43	4.00	0.000
Median	4.00	0.000
Std Dev	2.30	1.000
61	2.00	1.175
61	1.50	1.469

241.30		Acid Soluble Iron
Lab	%Fe <sub>2</sub> O <sub>3</sub>	ICP
275	1.49	-10.104
275	1.47	-9.514
31	1.26	-1.149
Std Dev	1.25	-1.000
32	1.25	-0.957
34	1.25	-0.957
61	1.25	-0.766
24	1.24	-0.383
32	1.23	-0.191
14	1.23	0.000
24	1.23	0.000

Median	1.23	0.000
14	1.22	0.191
61	1.22	0.191
23	1.22	0.383
23	1.21	0.766
Std Dev	1.20	1.000
9	1.20	1.149
43	1.16	2.680
43	1.15	3.063

241.XX Lab	%Fe <sub>2</sub> O <sub>3</sub>	Acid Soluble Iron Total Method
275	1.49	-10.379
275	1.47	-9.767
219	1.29	-2.462
31	1.26	-1.092
Std Dev	1.25	-1.000
32	1.25	-0.893
34	1.25	-0.893
61	1.25	-0.695
24	1.24	-0.298
32	1.23	-0.099
Median	1.23	0.000
14	1.23	0.099
24	1.23	0.099
14	1.22	0.298
61	1.22	0.298
23	1.22	0.496
23	1.21	0.893
Std Dev	1.20	1.000
9	1.20	1.290
43	1.16	2.879
43	1.15	3.276

251.30 Lab	PPM	Total Lead ICP
61	<1.8	0.000
61	<1.8	0.000
275	1.56	-1.146
Std Dev	1.51	-1.000
275	1.39	-0.602
Median	1.19	0.000
43	1.00	0.602
43	1.00	0.602

251.99 Lab	Total Lead Other	
24	0.10	0.000
Median	0.10	0.000

251.XX Lab	PPM	Total Lead Total Method
61	<1.8	0.000
61	<1.8	0.000
275	1.56	-1.945
275	1.39	-1.340
Std Dev	1.29	-1.000
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000
24	0.10	3.138

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

261.99 Lab	PPM	Acid Soluble Manganese Other
219	239.65	-0.692
43	239.50	-0.677
43	238.50	-0.572
Median	233.00	0.000
61	227.50	0.572
61	226.00	0.729
Std Dev	223.39	1.000
24	214.50	1.925

261.XX Lab	PPM	Acid Soluble Manganese Total Method
31	313.05	-7.789
Std Dev	248.07	-1.000
219	239.65	-0.120
43	239.50	-0.104
43	238.50	0.000
Median	238.50	0.000
Std Dev	228.93	1.000
61	227.50	1.149

61	226.00	1.306
24	214.50	2.508

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

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

289.30 Lab	PPM	Total Molybdenum ICP
64		

289.99 Lab	PPM	Total Molybdenum Other
24	13.25	0.000
Median	13.25	0.000

289.XX Lab	PPM	Total Molybdenum Total Method
24	13.25	-3.201
64	12.06	-1.239
Std Dev	11.91	-1.000
43	11.35	-0.082
Median	11.30	0.000
43	11.25	0.082
61	11.00	0.492
Std Dev	10.69	1.000
61	10.00	2.134

291.30 Lab	Total Nickel ICP	
61		

291.99 Lab	PPM	Total Nickel Other
24	15.95	0.000
Median	15.95	0.000

291.XX Lab	PPM	Total Nickel Total Method
61	18.00	-6.533

61	16.50	-1.508
Std Dev	16.35	-1.000
64	16.10	-0.168
Median	16.05	0.000
43	16.00	0.168
43	16.00	0.168
24	15.95	0.335

301.30 Lab	PPM	Total Selenium ICP
24	0.69	0.000
Median	0.69	0.000

301.XX Lab	PPM	Total Selenium Total Method
24	0.69	0.000
Median	0.69	0.000

311.99 Lab	%Na <sub>2</sub> O	Sodium Other
23	0.34	-0.927
24	0.34	-0.927
24	0.34	-0.618
23	0.33	-0.309
Median	0.33	0.000
61	0.32	0.309
61	0.32	0.309
Std Dev	0.31	1.000
43	0.30	1.653
43	0.30	1.661

311.XX Lab	%Na <sub>2</sub> O	Sodium Total Method
23	0.34	-0.927
24	0.34	-0.927
24	0.34	-0.618
23	0.33	-0.309
Median	0.33	0.000
61	0.32	0.309
61	0.32	0.309
Std Dev	0.31	1.000
43	0.30	1.653
43	0.30	1.661

321.00		
Lab	Acid Soluble Zinc	
	Atomic Absorption	
219	110.95	0.000
Median	110.95	0.000

34	0.57	0.342
14	0.53	1.197
14	0.53	1.209
79	0.53	1.254

321.30		
Lab	PPM	Acid Soluble Zinc
		ICP
61	115.00	-0.964
61	112.50	-0.545
Median	109.25	0.000
24	106.00	0.545
Std Dev	103.29	1.000
64	102.54	1.126

325.99		
Lab	%	Fluoride
		Other
61	0.64	-2.010
330	0.62	-0.335
Median	0.61	0.000
61	0.61	0.335
9	0.59	1.340

321.99		
Lab	Acid Soluble Zinc	
	Other	
43	103.00	-1.340
Std Dev	102.94	-1.000
Median	102.75	0.000
Std Dev	102.56	1.000
43	102.50	1.340

325.XX		
Lab	%	Fluoride
		Total Method
31	1.84	-30.576
32	0.65	-1.584
61	0.64	-1.340
32	0.64	-1.218
330	0.62	-0.731
61	0.61	-0.487
9	0.59	-0.122
23	0.59	0.000
23	0.59	0.000
24	0.59	0.000
Median	0.59	0.000
24	0.57	0.365
34	0.57	0.365
14	0.53	1.279
14	0.53	1.291
79	0.53	1.340

321.XX		
Lab	PPM	Acid Soluble Zinc
		Total Method
61	115.00	-1.346
Std Dev	112.68	-1.000
61	112.50	-0.972
219	110.95	-0.740
24	106.00	0.000
Median	106.00	0.000
43	103.00	0.449
64	102.54	0.518
43	102.50	0.524

325.10		
Lab	%	Fluoride
		Electrode
31	1.84	-28.625
32	0.65	-1.483
32	0.64	-1.140
23	0.59	0.000
23	0.59	0.000
24	0.59	0.000
Median	0.59	0.000
24	0.57	0.342