

Sample	AFPC		2013-06	Grade	11-52-0
	AOAC Ref.	Method #	# of Labs.	Grand Median	Std Dev
<b>AMMONIACAL NITROGEN</b>					
Ammoniacal Nitrogen, MgO distillation	920.03	001.10	1	11.68	0.00
Ammoniacal Nitrogen, Other		001.99	12	11.61	0.05
Method Group 001.XX PCT			13	11.62	0.06
<b>TOTAL NITROGEN</b>					
Total Nitrogen, Modified Comprehensive	978.02	010.11	3	11.61	0.01
Total Nitrogen, Salicylic	955.04d	010.12	1	11.32	0.00
Total Nitrogen, Combustion	993.13	010.60	16	11.64	0.08
Total Nitrogen, Other		010.99	4	11.56	0.16
Method Group 010.XX PCT			24	11.62	0.12
<b>TOTAL PHOSPHATE</b>					
Total Phosphate, Gravimetric Quimociac		020.10	2	53.83	0.09
Total Phosphate, Spectrometric	978.02	020.20	18	53.43	0.17
Total Phosphate, ICP	970.03	020.40	3	53.62	0.47
Total Phosphate, Other	993.13	020.99	2	53.63	0.19
Method Group 020.XX PCT			25	53.48	0.24
<b>INSOLUBLE PHOSPHATE</b>					
Insoluble Phosphate, Spectrometric	963.03C(b)	030.20	11	0.44	0.26
Insoluble Phosphate, Alka. Quimociac	963.03C(c)	030.30	1	0.52	0.00
Insoluble Phosphate, Automated	978.01	030.40	2	0.63	0.04
Insoluble Phosphate, Other		030.99	2	0.84	0.03
Method Group 030.XX PCT			16	0.54	0.39
<b>INDIRECT AVAILABLE PHOSPHATE</b>					
Indirect Available Phosphate, Gravimetric Quimociac	960.02	040.10	1	53.61	0.00
Indirect Available Phosphate, Spectrometric	960.02	040.20	12	53.07	0.34
Indirect Available Phosphate, Automated	960.02	040.40	1	52.91	0.00
Indirect Available Phosphate, Other		040.99	1	53.23	0.00
Method Group 040.XX PCT			15	53.12	0.40
<b>DIRECT AVAILABLE PHOSPHATE</b>					
Direct Available Phosphate, Gravimetric Quimociac	960.03E	041.10	3	51.27	0.44
Direct Available Phosphate, ICP		041.50	5	51.66	1.31
Direct Available Phosphate, EDTA Extract	993.01	041.60	7	53.11	0.51
Method Group 041.XX PCT			15	52.22	1.36
<b>WATER SOLUBLE PHOSPHATE</b>					
Water Soluble Phosphate, Spectrometric	970.01	048.20	16	48.51	0.31
Water Soluble Phosphate, Other		048.99	3	49.01	0.12
Method Group 048.XX PCT			19	48.64	0.46
<b>SOLUBLE POTASH AS K<sub>2</sub>O</b>					
Soluble Potash, ICP(Oxalate)		050.50	2	0.20	0.00
Soluble Potash, ICP(Citrate)		050.51	1	0.21	0.00
Soluble Potash, Flame Photometric(Citrate)	983.02B(b)	050.61	1	0.25	0.00
Soluble Potash, Other		050.99	9	0.20	0.00
Method Group 050.XX PCT			13	0.20	0.00
<b>FREE WATER</b>					
Free Water, Vacuum Oven	965.08B	060.00	15	0.67	0.12
Free Water, Vacuum Desiccate	965.08A	060.10	2	0.90	0.01
Free Water, Other		060.99	2	0.66	0.02
Method Group 060.XX PCT			19	0.68	0.15
<b>ACID SOLUBLE CALCIUM AS CaO</b>					
Acid Soluble Calcium, Atomic Absorption	945.04	101.00	1	0.18	0.00

Acid Soluble Calcium, ICP		101.30	17	0.28	0.03
Acid Soluble Calcium, Other		101.99	1	0.19	0.00
Method Group 101.XX PCT			19	0.27	0.04
<b>ACID SOLUBLE MAGNESIUM AS MgO</b>					
Acid Soluble Magnesium, Atomic Absorption	984.01	121.00	1	0.48	0.00
Acid Soluble Magnesium, ICP		121.30	15	0.71	0.03
Acid Soluble Magnesium, Other		121.99	1	0.52	0.00
Method Group 121.XX PCT			17	0.70	0.04
<b>SULFATE SULFUR (S)</b>					
Sulfur, Gravimetric	980.02(a)	144.01	3	1.49	0.02
Sulfur, Spectrometric		144.70	2	4.57	0.00
Sulfur, Other		144.99	9	1.51	0.03
Method Group 144.XX PCT			14	1.51	0.04
<b>TOTAL SULFUR (S)</b>					
Sulfur, Other		145.99	2	1.62	0.00
Method Group 145.XX PCT			2	1.62	0.00
<b>TOTAL ARSENIC</b>					
Total Arsenic, ICP	980.02(b)	151.02	6	15	5.8
Total Arsenic, Other		151.99	2	14	0.4
Method Group 151.XX PPM			8	14	3.6
<b>ACID SOLUBLE BORON</b>					
Acid Soluble Boron, Other		165.99	1	33	0.0
Method Group 165.XX PPM			1	33	0.0
<b>TOTAL CADMIUM</b>					
Total Cadmium, ICP		181.30	7	4	0.3
Total Cadmium, Other		181.99	1	3	0.0
Method Group 181.XX PPM			8	3	0.3
<b>ALUMINUM AS Al<sub>2</sub>O<sub>3</sub></b>					
ICP, %			14	1.78	0.03
Other		190.99	1	1.81	0.00
Method Group 190.XX PCT			15	1.78	0.04
<b>TOTAL CHROMIUM</b>					
Total Chromium, ICP		191.30	8	90	6.3
Total Chromium, Other		191.99	3	91	9.3
Method Group 191.XX PPM			11	90	8.2
<b>ACID SOLUBLE COBALT</b>					
Acid Soluble Cobalt, ICP		202.30	6	3	0.7
Acid Soluble Cobalt, Other		202.99	1	3	0.0
Method Group 202.XX PPM			7	3	0.8
<b>ACID SOLUBLE COPPER</b>					
Acid Soluble Copper, Atomic Absorption	975.01	221.00	1	1	0.0
Acid Soluble Copper, ICP		221.30	2	70	0.2
Acid Soluble Copper, Other		221.99	1	0	0.0
Method Group 221.XX PPM			3	70	31.0
<b>ACID SOLUBLE IRON AS Fe<sub>2</sub>O<sub>3</sub></b>					
Acid Soluble Iron, ICP		241.30	16	1.30	0.03
Method Group 241.XX PCT			17	1.31	0.04
<b>TOTAL LEAD</b>					
Total Lead, ICP		251.30	3	1	0.4
Total Lead, Other		251.99	1	1	0.0
Method Group 251.XX PPM			4	1	0.3
<b>ACID SOLUBLE MANGANESE</b>					
Acid Soluble Manganese, Atomic Absorption	972.02b	261.11	1	398	0.0
Acid Soluble Manganese, ICP	972.02a	261.30	2	436	0.1
Acid Soluble Manganese, Other		261.99	6	436	32.3

Method Group 261.XX PPM			9	436	37.7
<b>TOTAL MOLYBDENUM</b>					
Total Molybdenum, ICP	289.30		6	22	1.4
Total Molybdenum, Other	289.99		1	24	0.0
Method Group 289.XX PPM			7	22	1.9
<b>TOTAL NICKEL</b>					
Total Nickel, ICP	291.30		6	14	1.4
Total Nickel, Other	291.99		1	13	0.0
Method Group 291.XX PPM			7	14	1.5
<b>SODIUM AS Na<sub>2</sub>O</b>					
Sodium, Atomic Absorbtion	983.04	311.00	1	0.20	0.00
Sodium, Other		311.99	8	0.21	0.03
Method Group 311.XX PCT			9	0.21	0.03
<b>ACID SOLUBLE ZINC</b>					
Acid Soluble Zinc, Atomic Absorption	975.02	321.00	1	169.5	0.0
Acid Soluble Zinc, ICP		321.30	5	175.0	9.3
Acid Soluble Zinc, Other		321.99	4	178.3	3.3
Method Group 321.XX PPM			10	176.0	8.2
<b>FLUORIDE</b>					
Volumetric	325.10		11	1.75	0.11
Distilled/Electrode	325.99		4	1.73	0.10
Method Group 325.XX PCT			15	1.75	0.13

001.10 Ammoniacal Nitrogen		
Lab		MgO distillation
31	11.68	0.000
<b>Median</b>	<b>11.68</b>	<b>0.000</b>

001.99 Ammoniacal Nitrogen		
Lab		Other
24	11.70	-1.675
34	11.68	-1.292
<b>Std Dev</b>	<b>11.66</b>	<b>-1.000</b>
32	11.66	-0.814
32	11.66	-0.814
140	11.63	-0.335
23	11.62	-0.144
<b>Median</b>	<b>11.61</b>	<b>0.000</b>
61	11.61	0.144
23	11.60	0.335
61	11.59	0.431
24	11.57	0.814
<b>Std Dev</b>	<b>11.56</b>	<b>1.000</b>
275	11.40	4.068
275	11.40	4.164

001.XX Ammoniacal Nitrogen		
Lab		Total Method
24	11.70	-1.649
34	11.68	-1.237
31	11.68	-1.134
<b>Std Dev</b>	<b>11.67</b>	<b>-1.000</b>
32	11.66	-0.722
32	11.66	-0.722
140	11.63	-0.206
23	11.62	0.000
<b>Median</b>	<b>11.62</b>	<b>0.000</b>
61	11.61	0.309
23	11.60	0.515
61	11.59	0.618
<b>Std Dev</b>	<b>11.57</b>	<b>1.000</b>
24	11.57	1.031
275	11.40	4.535
275	11.40	4.638

010.11 Total Nitrogen		
Lab		Modified Comprehensive

43	11.63	-1.340
<b>Std Dev</b>	<b>11.62</b>	<b>-1.000</b>
43	11.61	0.000
<b>Median</b>	<b>11.61</b>	<b>0.000</b>
<b>Std Dev</b>	<b>11.60</b>	<b>1.000</b>
219	11.60	1.340

010.12 Total Nitrogen		
Lab		Salicylic
107	11.32	0.000
<b>Median</b>	<b>11.32</b>	<b>0.000</b>

010.60 Total Nitrogen		
Lab		Combustion
24	11.75	-1.355
80	11.75	-1.355
47	11.75	-1.294
<b>Std Dev</b>	<b>11.72</b>	<b>-1.000</b>
31	11.72	-0.986
9	11.66	-0.246
66	11.66	-0.185
24	11.64	0.000
63	11.64	0.000
63	11.64	0.000
<b>Median</b>	<b>11.64</b>	<b>0.000</b>
77	11.60	0.493
137	11.59	0.678
219	11.58	0.801
<b>Std Dev</b>	<b>11.56</b>	<b>1.000</b>
49	11.54	1.232
14	11.35	3.635
14	11.35	3.635
110	11.08	6.900

010.99 Total Nitrogen		
Lab		Other
32	11.66	-0.626
32	11.66	-0.626
<b>Median</b>	<b>11.56</b>	<b>0.000</b>
40	11.46	0.626
99	11.41	0.979

010.XX Total Nitrogen		
Lab		Total Method

24	11.75	-1.315
80	11.75	-1.315
47	11.75	-1.266
31	11.72	-1.017
<b>Std Dev</b>	<b>11.72</b>	<b>-1.000</b>
9	11.66	-0.422
32	11.66	-0.372
32	11.66	-0.372
66	11.66	-0.372
24	11.64	-0.223
63	11.64	-0.223
63	11.64	-0.223
43	11.63	-0.074
<b>Median</b>	<b>11.62</b>	<b>0.000</b>
43	11.61	0.074
77	11.60	0.174
219	11.60	0.223
137	11.59	0.323
219	11.58	0.422
49	11.54	0.769
<b>Std Dev</b>	<b>11.52</b>	<b>1.000</b>
40	11.46	1.563
99	11.41	2.109
14	11.35	2.705
14	11.35	2.705
107	11.32	3.003
110	11.08	5.335

020.10 Total Phosphate		
Lab		Gravimetric Quimociac
40	53.95	-1.340
<b>Std Dev</b>	<b>53.92</b>	<b>-1.000</b>
<b>Median</b>	<b>53.83</b>	<b>0.000</b>
<b>Std Dev</b>	<b>53.74</b>	<b>1.000</b>
219	53.72	1.340

020.20 Total Phosphate		
Lab		Spectrometric
61	53.92	-2.809
140	53.77	-1.949
34	53.76	-1.920
9	53.64	-1.233
31	53.64	-1.204
<b>Std Dev</b>	<b>53.60</b>	<b>-1.000</b>

43	53.52	-0.516
23	53.50	-0.401
32	53.48	-0.287
14	53.43	0.000
24	53.43	0.000
<b>Median</b>	<b>53.43</b>	<b>0.000</b>
275	53.42	0.029
14	53.40	0.143
23	53.39	0.201
43	53.37	0.344
24	53.27	0.889
<b>Std Dev</b>	<b>53.25</b>	<b>1.000</b>
32	53.22	1.175
275	53.16	1.519
110	50.39	17.427

020.40 Total Phosphate		
Lab		Automated
9	53.63	-0.021
219	53.62	0.000
<b>Median</b>	<b>53.62</b>	<b>0.000</b>
<b>Std Dev</b>	<b>53.15</b>	<b>1.000</b>
137	52.37	2.659

020.99 Total Phosphate		
Lab		Other
113	53.89	-1.340
<b>Std Dev</b>	<b>53.82</b>	<b>-1.000</b>
<b>Median</b>	<b>53.63</b>	<b>0.000</b>
<b>Std Dev</b>	<b>53.44</b>	<b>1.000</b>
99	53.38	1.340

020.XX Total Phosphate		
Lab		Total Method
40	53.95	-2.402
61	53.92	-2.225
113	53.89	-2.073
140	53.77	-1.466
34	53.76	-1.441
219	53.72	-1.214
<b>Std Dev</b>	<b>53.67</b>	<b>-1.000</b>
9	53.64	-0.834
31	53.64	-0.809
9	53.63	-0.784

219	53.62	-0.733
43	53.52	-0.202
23	53.50	-0.101
32	53.48	0.000
<b>Median</b>	<b>53.48</b>	<b>0.000</b>
14	53.43	0.253
24	53.43	0.253
275	53.42	0.278
14	53.40	0.379
23	53.39	0.430
99	53.38	0.506
43	53.37	0.556
<b>Std Dev</b>	<b>53.28</b>	<b>1.000</b>
24	53.27	1.037
32	53.22	1.289
275	53.16	1.593
137	52.37	5.613
110	50.39	15.625

030.20		Insoluble Phosphate Spectrometric	
Lab			
43	1.09	-2.494	
43	0.89	-1.732	
<b>Std Dev</b>	<b>0.70</b>	<b>-1.000</b>	
23	0.68	-0.912	
23	0.55	-0.437	
140	0.51	-0.266	
61	0.44	0.000	
<b>Median</b>	<b>0.44</b>	<b>0.000</b>	
113	0.28	0.589	
24	0.27	0.627	
24	0.25	0.703	
<b>Std Dev</b>	<b>0.17</b>	<b>1.000</b>	
14	0.04	1.502	
14	0.04	1.521	

030.30		Insoluble Phosphate Alka. Quimociac	
Lab			
31	0.52	0.000	
<b>Median</b>	<b>0.52</b>	<b>0.000</b>	

030.40		Insoluble Phosphate Automated	
Lab			
9	0.68	-1.340	

<b>Std Dev</b>	<b>0.67</b>	<b>-1.000</b>
<b>Median</b>	<b>0.63</b>	<b>0.000</b>
<b>Std Dev</b>	<b>0.58</b>	<b>1.000</b>
34	0.57	1.340

030.99		Insoluble Phosphate Other	
Lab			
32	0.89	-1.340	
<b>Std Dev</b>	<b>0.87</b>	<b>-1.000</b>	
<b>Median</b>	<b>0.84</b>	<b>0.000</b>	
<b>Std Dev</b>	<b>0.81</b>	<b>1.000</b>	
32	0.80	1.340	

030.XX		Insoluble Phosphate Total Method	
Lab			
43	1.09	-1.723	
43	0.89	-1.101	
32	0.89	-1.084	
<b>Std Dev</b>	<b>0.86</b>	<b>-1.000</b>	
32	0.80	-0.821	
9	0.68	-0.449	
23	0.68	-0.434	
34	0.57	-0.108	
23	0.55	-0.046	
<b>Median</b>	<b>0.54</b>	<b>0.000</b>	
31	0.52	0.046	
140	0.51	0.093	
61	0.44	0.310	
113	0.28	0.790	
24	0.27	0.821	
24	0.25	0.883	
<b>Std Dev</b>	<b>0.21</b>	<b>1.000</b>	
14	0.04	1.534	
14	0.04	1.549	

030.20		Insoluble Phosphate Spectrometric	
Lab			
43	1.09	-2.494	
43	0.89	-1.732	
<b>Std Dev</b>	<b>0.70</b>	<b>-1.000</b>	
23	0.68	-0.912	
23	0.55	-0.437	
140	0.51	-0.266	
61	0.44	0.000	
<b>Median</b>	<b>0.44</b>	<b>0.000</b>	
113	0.28	0.589	
24	0.27	0.627	
24	0.25	0.703	
<b>Std Dev</b>	<b>0.17</b>	<b>1.000</b>	
14	0.04	1.502	
14	0.04	1.521	

040.10		Indirect Available Phosphate Gravimetric Quimociac	
Lab			
113	53.61	0.000	
<b>Median</b>	<b>53.61</b>	<b>0.000</b>	

040.20		Indirect Available Phosphate Spectrometric	
Lab			
61	53.48	-1.218	
<b>Std Dev</b>	<b>53.41</b>	<b>-1.000</b>	

14	53.39	-0.935
14	53.37	-0.876
140	53.26	-0.564
24	53.16	-0.252
31	53.12	-0.134
<b>Median</b>	<b>53.07</b>	<b>0.000</b>
24	53.03	0.134
9	52.92	0.445
23	52.84	0.683
23	52.82	0.742
<b>Std Dev</b>	<b>52.73</b>	<b>1.000</b>
43	52.63	1.321
43	52.28	2.361

040.40		Indirect Available Phosphate Automated	
Lab			
9	52.91	0.000	
<b>Median</b>	<b>52.91</b>	<b>0.000</b>	

040.99		Indirect Available Phosphate Other	
Lab			
34	53.23	0.000	
<b>Median</b>	<b>53.23</b>	<b>0.000</b>	

040.XX		Indirect Available Phosphate Total Method	
Lab			
113	53.61	-1.501	
61	53.48	-1.118	
<b>Std Dev</b>	<b>53.44</b>	<b>-1.000</b>	
14	53.39	-0.827	
14	53.37	-0.766	
140	53.26	-0.444	
34	53.23	-0.352	
24	53.16	-0.123	
31	53.12	0.000	
<b>Median</b>	<b>53.12</b>	<b>0.000</b>	
24	53.03	0.276	
9	52.92	0.597	
9	52.91	0.628	
23	52.84	0.842	
23	52.82	0.904	
<b>Std Dev</b>	<b>52.79</b>	<b>1.000</b>	
43	52.63	1.501	
43	52.28	2.573	

041.10		Direct Available Phosphate Gravimetric Quimociac	
Lab			
219	52.20	-2.124	
<b>Std Dev</b>	<b>51.71</b>	<b>-1.000</b>	
107	51.27	0.000	
<b>Median</b>	<b>51.27</b>	<b>0.000</b>	
47	51.02	0.556	

041.50		Direct Available Phosphate ICP	
Lab			
63	52.61	-0.723	
63	52.61	-0.723	
66	51.66	0.000	
<b>Median</b>	<b>51.66</b>	<b>0.000</b>	
47	50.85	0.617	
<b>Std Dev</b>	<b>50.35</b>	<b>1.000</b>	
80	50.30	1.035	

041.60		Direct Available Phosphate EDTA Extract	
Lab			
49	53.52	-0.805	
275	53.26	-0.304	
219	53.13	-0.049	
275	53.11	0.000	
<b>Median</b>	<b>53.11</b>	<b>0.000</b>	
77	52.81	0.589	
<b>Std Dev</b>	<b>52.60</b>	<b>1.000</b>	
137	52.22	1.738	
29	52.17	1.840	

041.XX		Direct Available Phosphate Total Method	
Lab			
49	53.52	-1.163	
<b>Std Dev</b>	<b>53.33</b>	<b>-1.000</b>	
275	53.26	-0.934	
219	53.13	-0.817	
275	53.11	-0.795	
77	52.81	-0.525	
63	52.61	-0.350	
63	52.61	-0.350	
137	52.22	0.000	
<b>Median</b>	<b>52.22</b>	<b>0.000</b>	
219	52.20	0.018	

29	52.17	0.047
66	51.66	0.503
107	51.27	0.857
Std Dev	51.11	1.000
47	51.02	1.077
47	50.85	1.230
80	50.30	1.724

048.20 Water Soluble Phosphate		
Lab		Spectrometric
61	49.26	-2.393
113	49.01	-1.595
61	48.97	-1.452
Std Dev	48.82	-1.000
43	48.76	-0.782
24	48.69	-0.574
43	48.68	-0.542
9	48.64	-0.415
31	48.52	-0.016
Median	48.51	0.000
23	48.51	0.016
23	48.48	0.096
24	48.42	0.303
14	48.29	0.702
14	48.28	0.750
140	48.21	0.973
Std Dev	48.20	1.000
275	47.70	2.600
275	47.60	2.903

048.99 Water Soluble Phosphate		
Lab		Other
32	49.05	-0.335
32	49.01	0.000
Median	49.01	0.000
Std Dev	48.89	1.000
34	48.73	2.345

048.XX Water Soluble Phosphate		
Lab		Total Method
61	49.26	-1.637
32	49.05	-1.083
Std Dev	49.02	-1.000
32	49.01	-0.977

113	49.01	-0.977
61	48.97	-0.858
43	48.76	-0.304
34	48.73	-0.238
24	48.69	-0.132
43	48.68	-0.106
9	48.64	0.000
Median	48.64	0.000
31	48.52	0.330
23	48.51	0.356
23	48.48	0.422
24	48.42	0.594
14	48.29	0.924
14	48.28	0.964
Std Dev	48.26	1.000
140	48.21	1.149
275	47.70	2.495
275	47.60	2.746

050.50 %K <sub>2</sub> O Soluble Potash		
Lab		ICP(Oxalate)
23	0.20	0.000
23	0.20	0.000
Median	0.20	0.000

050.51 %K <sub>2</sub> O Soluble Potash		
Lab		ICP(Citrate)
137	0.21	0.000
Median	0.21	0.000

050.61 Soluble Potash		
Lab		Flame Photometric(Citrate)
219	0.25	0.000
Median	0.25	0.000

050.99 Soluble Potash		
Lab	%K <sub>2</sub> O	Other
43	0.21	-1.782
43	0.21	-1.427
80	0.21	-1.340
Std Dev	0.20	-1.000
9	0.20	0.000
24	0.20	0.000
61	0.20	0.000

61	0.20	0.000
Median	0.20	0.000
Std Dev	0.20	1.000
99	0.19	4.020
24	0.18	5.360

050.XX Soluble Potash		
Lab	%K <sub>2</sub> O	Total Method
219	0.25	-12.060
43	0.21	-1.782
43	0.21	-1.427
80	0.21	-1.340
137	0.21	-1.340
Std Dev	0.20	-1.000
9	0.20	0.000
23	0.20	0.000
23	0.20	0.000
24	0.20	0.000
61	0.20	0.000
61	0.20	0.000
Median	0.20	0.000
Std Dev	0.20	1.000
99	0.19	4.020
24	0.18	5.360

060.00 Free Water		
Lab		Vacuum Oven
14	0.81	-1.096
24	0.80	-1.056
Std Dev	0.79	-1.000
24	0.79	-0.975
14	0.77	-0.812
34	0.75	-0.650
9	0.71	-0.325
32	0.71	-0.325
32	0.67	0.000
Median	0.67	0.000
140	0.66	0.081
31	0.63	0.325
23	0.61	0.487
23	0.58	0.731
43	0.57	0.812
Std Dev	0.55	1.000
113	0.54	1.056

43	0.48	1.584
060.10 Free Water		
Lab		Vacuum Desiccate
61	0.91	-1.340
Std Dev	0.90	-1.000
Median	0.90	0.000
Std Dev	0.89	1.000
61	0.89	1.340

060.99 Free Water		
Lab		Other
275	0.68	-1.340
Std Dev	0.67	-1.000
Median	0.66	0.000
Std Dev	0.64	1.000
275	0.63	1.340

060.XX Free Water		
Lab		Total Method
61	0.91	-1.884
61	0.89	-1.717
14	0.81	-1.047
24	0.80	-1.005
Std Dev	0.80	-1.000
24	0.79	-0.921
14	0.77	-0.754
34	0.75	-0.586
9	0.71	-0.251
32	0.71	-0.251
275	0.68	0.000
Median	0.68	0.000
32	0.67	0.084
140	0.66	0.167
31	0.63	0.419
275	0.63	0.419
23	0.61	0.586
23	0.58	0.838
43	0.57	0.921
Std Dev	0.56	1.000
113	0.54	1.173
43	0.48	1.717

101.00 Acid Soluble Calcium		
Lab	%CaO	Atomic Absorption
219	0.18	0.000
<b>Median</b>	<b>0.18</b>	<b>0.000</b>

101.30 Acid Soluble Calcium		
Lab	%CaO	ICP
31	0.39	-3.518
32	0.34	-2.010
32	0.32	-1.340
23	0.32	-1.173
<b>Std Dev</b>	<b>0.31</b>	<b>-1.000</b>
61	0.30	-0.502
34	0.29	-0.335
61	0.29	-0.335
23	0.29	-0.168
24	0.28	0.000
<b>Median</b>	<b>0.28</b>	<b>0.000</b>
275	0.27	0.302
24	0.27	0.335
14	0.27	0.503
14	0.26	0.838
43	0.25	0.950
<b>Std Dev</b>	<b>0.25</b>	<b>1.000</b>
9	0.25	1.005
43	0.25	1.060
275	0.22	1.960

101.99 Acid Soluble Calcium		
Lab	%CaO	Other
219	0.19	0.000
<b>Median</b>	<b>0.19</b>	<b>0.000</b>

101.XX Acid Soluble Calcium		
Lab	%CaO	Total Method
31	0.39	-3.665
32	0.34	-2.218
32	0.32	-1.575
23	0.32	-1.415
<b>Std Dev</b>	<b>0.30</b>	<b>-1.000</b>
61	0.30	-0.772
34	0.29	-0.611
61	0.29	-0.611
23	0.29	-0.450

24	0.28	-0.289
275	0.27	0.000
<b>Median</b>	<b>0.27</b>	<b>0.000</b>
24	0.27	0.032
14	0.27	0.193
14	0.26	0.514
43	0.25	0.622
9	0.25	0.675
43	0.25	0.728
<b>Std Dev</b>	<b>0.24</b>	<b>1.000</b>
275	0.22	1.592
219	0.19	2.749
219	0.18	2.894

121.00 Acid Soluble Magnesium		
Lab	%MgO	Atomic Absorption
219	0.48	0.000
<b>Median</b>	<b>0.48</b>	<b>0.000</b>

121.30 Acid Soluble Magnesium		
Lab	%MgO	ICP
34	0.76	-1.576
24	0.75	-1.261
24	0.75	-1.261
<b>Std Dev</b>	<b>0.74</b>	<b>-1.000</b>
23	0.74	-0.946
23	0.74	-0.788
9	0.72	-0.315
61	0.72	-0.315
31	0.71	0.000
<b>Median</b>	<b>0.71</b>	<b>0.000</b>
14	0.70	0.315
14	0.70	0.315
32	0.70	0.315
32	0.69	0.631
43	0.69	0.631
43	0.69	0.631
<b>Std Dev</b>	<b>0.68</b>	<b>1.000</b>
61	0.63	2.680

121.99 Acid Soluble Magnesium		
Lab	%MgO	Other
219	0.52	0.000
<b>Median</b>	<b>0.52</b>	<b>0.000</b>

121.XX Acid Soluble Magnesium		
Lab	%MgO	Total Method
34	0.76	-1.787
24	0.75	-1.489
24	0.75	-1.489
23	0.74	-1.191
23	0.74	-1.042
<b>Std Dev</b>	<b>0.73</b>	<b>-1.000</b>
9	0.72	-0.596
61	0.72	-0.596
31	0.71	-0.298
14	0.70	0.000
14	0.70	0.000
32	0.70	0.000
<b>Median</b>	<b>0.70</b>	<b>0.000</b>
32	0.69	0.298
43	0.69	0.298
43	0.69	0.298
<b>Std Dev</b>	<b>0.67</b>	<b>1.000</b>
61	0.63	2.233
219	0.52	5.479
219	0.48	6.536

144..01 Sulfate Sulfur (S)		
Lab		Gravimetric
219	1.53	-1.443
<b>Std Dev</b>	<b>1.51</b>	<b>-1.000</b>
61	1.49	0.000
<b>Median</b>	<b>1.49</b>	<b>0.000</b>
<b>Std Dev</b>	<b>1.47</b>	<b>1.000</b>
61	1.46	1.237

144.70 Sulfur		
Lab		Spectrometric
14	4.57	-1.340
<b>Std Dev</b>	<b>4.57</b>	<b>-1.000</b>
<b>Median</b>	<b>4.57</b>	<b>0.000</b>
<b>Std Dev</b>	<b>4.57</b>	<b>1.000</b>
14	4.57	1.340

144.99 Sulfate Sulfur (S)		
Lab		Other
9	1.52	-0.335

23	1.52	-0.335
23	1.52	-0.168
24	1.51	0.000
34	1.51	0.000
<b>Median</b>	<b>1.51</b>	<b>0.000</b>
24	1.49	0.670
<b>Std Dev</b>	<b>1.48</b>	<b>1.000</b>
32	1.48	1.173
32	1.46	1.843
31	1.38	4.355

144.XX Sulfate Sulfur (S)		
Lab		Total Method
14	4.57	-99.404
14	4.57	-99.241
<b>Std Dev</b>	<b>1.54</b>	<b>-1.000</b>
219	1.53	-0.487
9	1.52	-0.325
23	1.52	-0.325
23	1.52	-0.162
24	1.51	0.000
34	1.51	0.000
<b>Median</b>	<b>1.51</b>	<b>0.000</b>
24	1.49	0.650
61	1.49	0.650
<b>Std Dev</b>	<b>1.48</b>	<b>1.000</b>
32	1.48	1.137
61	1.46	1.624
32	1.46	1.787
31	1.38	4.223

145.99 Total Sulfur (S)		
Lab		Other
43	1.63	-1.340
<b>Std Dev</b>	<b>1.62</b>	<b>-1.000</b>
<b>Median</b>	<b>1.62</b>	<b>0.000</b>
<b>Std Dev</b>	<b>1.62</b>	<b>1.000</b>
43	1.62	1.340

145.XX Total Sulfur (S)		
Lab		Total Method
43	1.63	-1.340
<b>Std Dev</b>	<b>1.62</b>	<b>-1.000</b>
<b>Median</b>	<b>1.62</b>	<b>0.000</b>

Std Dev	1.62	1.000
43	1.62	1.340

151.30 Lab	Total Arsenic PPM	ICP
43	20.00	-0.911
43	19.65	-0.850
24	15.50	-0.130
Median	14.75	0.000
61	14.00	0.130
31	9.85	0.850
113	9.40	0.928

151.99 Lab	Total Arsenic Other	
275	14.50	-1.340
Std Dev	14.37	-1.000
Median	14.00	0.000
Std Dev	13.63	1.000
275	13.50	1.340

151.XX Lab	Total Arsenic Total Method	
43	20.00	-1.951
43	19.65	-1.832
Std Dev	17.20	-1.000
24	15.50	-0.424
275	14.50	-0.085
Median	14.25	0.000
61	14.00	0.085
275	13.50	0.254
Std Dev	11.30	1.000
31	9.85	1.493
113	9.40	1.645

165.99 Lab	Acid Soluble Boron PPM	Other
24	32.90	0.000
Median	32.90	0.000

65.XX, ppm Lab	Acid Soluble Boron PPM	Total Method
24	32.90	0.000
Median	32.90	0.000

181.30 Lab	Total Cadmium PPM	ICP
9	4.19	-2.312
Std Dev	3.80	-1.000
113	3.60	-0.335
61	3.50	0.000
61	3.50	0.000
Median	3.50	0.000
219	3.37	0.436
Std Dev	3.20	1.000
43	2.93	1.910
43	2.93	1.910

181.99 Lab	Total Cadmium Other	
24	3.35	0.000
Median	3.35	0.000

181.XX Lab	Total Cadmium Total Method	
9	4.19	-3.613
Std Dev	3.64	-1.000
113	3.60	-0.790
61	3.50	-0.311
61	3.50	-0.311
Median	3.44	0.000
219	3.37	0.311
24	3.35	0.407
Std Dev	3.23	1.000
43	2.93	2.417
43	2.93	2.417

190.00 Lab	%Al <sub>2</sub> O <sub>3</sub>	Aluminum ICP
9	1.83	-2.033
14	1.83	-1.848
14	1.83	-1.848
Std Dev	1.80	-1.000
43	1.80	-0.924
34	1.79	-0.554
24	1.78	-0.185
43	1.78	-0.185
Median	1.78	0.000

23	1.77	0.185
32	1.77	0.185
23	1.77	0.370
24	1.76	0.554
32	1.75	0.924
Std Dev	1.75	1.000
61	1.74	1.294
61	1.68	3.697

190.99 Lab	%Al <sub>2</sub> O <sub>3</sub>	Aluminum Atomic Absorption
31	1.81	0.000
Median	1.81	0.000

190.XX Lab	%Al <sub>2</sub> O <sub>3</sub>	Aluminum Total Method
9	1.83	-1.576
14	1.83	-1.419
14	1.83	-1.419
Std Dev	1.81	-1.000
31	1.81	-0.946
43	1.80	-0.631
34	1.79	-0.315
24	1.78	0.000
43	1.78	0.000
Median	1.78	0.000
23	1.77	0.315
32	1.77	0.315
23	1.77	0.473
24	1.76	0.631
32	1.75	0.946
Std Dev	1.75	1.000
61	1.74	1.261
61	1.68	3.311

191.30 Lab	Total Chromium PPM	ICP
113	110.00	-3.177
31	98.00	-1.285
9	97.00	-1.127
Std Dev	96.19	-1.000
219	90.20	-0.055
Median	89.85	0.000
43	89.50	0.055

43	89.00	0.134
61	88.00	0.292
61	86.00	0.607

191.99 Lab	Total Chromium Other	
275	105.00	-1.554
Std Dev	99.83	-1.000
24	90.50	0.000
Median	90.50	0.000
Std Dev	81.17	1.000
275	80.00	1.126

191.XX Lab	Total Chromium Total Method	
113	110.00	-2.948
275	105.00	-2.204
31	98.00	-1.161
9	97.00	-1.012
Std Dev	96.92	-1.000
24	90.50	-0.045
219	90.20	0.000
Median	90.20	0.000
43	89.50	0.104
43	89.00	0.179
61	88.00	0.328
61	86.00	0.625
Std Dev	83.48	1.000
275	80.00	1.519

202.30 Lab	Acid Soluble Cobalt PPM	ICP
219	5.45	-3.105
Std Dev	4.01	-1.000
61	4.00	-0.981
9	3.66	-0.483
Median	3.33	0.000
43	3.00	0.483
43	3.00	0.483
61	3.00	0.483

202.99 Lab	Acid Soluble Cobalt Other	
24	2.58	0.000



Median	2.58	0.000
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202.XX Acid Soluble Cobalt		
Lab	PPM	Total Method
219	5.45	-3.955
61	4.00	-1.614
9	3.66	-1.066
Std Dev	3.62	-1.000
43	3.00	0.000
43	3.00	0.000
61	3.00	0.000
Median	3.00	0.000
24	2.58	0.678

221.00 Acid Soluble Copper		
Lab	PPM	Atomic Absorption
219	1.33	0.000
Median	1.33	0.000

221.30 Acid Soluble Copper		
Lab	PPM	ICP
43	70.50	-1.340
Std Dev	70.44	-1.000
Median	70.25	0.000
Std Dev	70.06	1.000
43	70.00	1.340

221.99 Acid Soluble Copper		
Lab	PPM	Other
24	2.27	0.000
Median	2.27	0.000

221.XX Acid Soluble Copper		
Lab	PPM	Total Method
43	70.50	-0.020
43	70.00	0.000
Median	70.00	0.000
Std Dev	44.54	1.000
24	2.27	2.660

241.30 Acid Soluble Iron		
Lab	%Fe <sub>2</sub> O <sub>3</sub>	ICP
32	1.37	-2.094
32	1.36	-1.926

34	1.34	-1.256
Std Dev	1.33	-1.000
24	1.33	-0.921
24	1.33	-0.921
14	1.33	-0.754
14	1.32	-0.586
23	1.31	-0.084
Median	1.30	0.000
23	1.30	0.084
31	1.30	0.084
61	1.30	0.084
9	1.29	0.419
43	1.29	0.419
43	1.29	0.419
Std Dev	1.27	1.000
61	1.25	1.759
219	1.18	4.271

241.XX Acid Soluble Iron		
Lab	%Fe <sub>2</sub> O <sub>3</sub>	Total Method
32	1.37	-2.010
32	1.36	-1.843
34	1.34	-1.173
Std Dev	1.33	-1.000
24	1.33	-0.837
24	1.33	-0.837
14	1.33	-0.670
219	1.33	-0.670
14	1.32	-0.502
23	1.31	0.000
Median	1.31	0.000
23	1.30	0.168
31	1.30	0.168
61	1.30	0.168
9	1.29	0.503
43	1.29	0.503
43	1.29	0.503
Std Dev	1.28	1.000
61	1.25	1.843
219	1.18	4.355

251.30 Total Lead		
Lab	PPM	ICP
61	<1	0.000

43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000
Std Dev	0.63	1.000
61	0.00	2.680

251.99 Total Lead		
Lab	PPM	Other
24	1.15	0.000
Median	1.15	0.000

251.XX Total Lead		
Lab	PPM	Total Method
61	<1	0.000
24	1.15	-0.699
43	1.00	0.000
43	1.00	0.000
Median	1.00	0.000
Std Dev	0.79	1.000
61	0.00	4.661

261.11 Acid Soluble Manganese		
Lab	PPM	Atomic Absorption
219	397.50	0.000
Median	397.50	0.000

261.30 Acid Soluble Manganese		
Lab	PPM	ICP
9	436.00	-1.340
Std Dev	435.97	-1.000
Median	435.90	0.000
Std Dev	435.83	1.000
31	435.80	1.340

261.99 Acid Soluble Manganese		
Lab	PPM	Other
43	460.50	-0.751
43	459.00	-0.705
24	456.00	-0.612
Median	436.25	0.000
61	416.50	0.612
61	414.50	0.674
Std Dev	403.97	1.000
219	388.50	1.479

261.XX Acid Soluble Manganese		
Lab	PPM	Total Method
43	460.50	-0.798
43	459.00	-0.749
24	456.00	-0.652
9	436.00	-0.006
31	435.80	0.000
Median	435.80	0.000
61	416.50	0.623
61	414.50	0.688
Std Dev	404.83	1.000
219	397.50	1.237
219	388.50	1.527

281.30 Total Mercury		
Lab	PPM	ICP
24	<0.06	0.000
Median	0.00	0.000

281.XX Total Mercury		
Lab	PPM	Total Method
24	<0.06	0.000
Median	0.00	0.000

289.30 Total Molybdenum		
Lab	PPM	ICP
219		

289.99 Total Molybdenum		
Lab	PPM	Other
24	23.90	0.000
Median	23.90	0.000

289.XX Total Molybdenum		
Lab	PPM	Total Method
24	23.90	-1.259
219	23.55	-1.033
9	23.50	-1.001
Std Dev	23.50	-1.000
43	21.95	0.000
Median	21.95	0.000
43	21.90	0.032
61	21.00	0.613
61	20.50	0.936

291.30 Total Nickel		
Lab		ICP
219	27.85	-10.255
Std Dev	14.90	-1.000
61	14.50	-0.715
9	13.50	0.000
61	13.50	0.000
Median	13.50	0.000
Std Dev	12.10	1.000
43	12.00	1.072
43	12.00	1.072

291.99 Total Nickel		
Lab	PPM	Other
24	12.70	0.000
Median	12.70	0.000

291.XX Total Nickel		
Lab	PPM	Total Method
219	27.85	-11.654
Std Dev	14.73	-1.000
61	14.50	-0.812
9	13.50	0.000
61	13.50	0.000
Median	13.50	0.000
24	12.70	0.650
Std Dev	12.27	1.000
43	12.00	1.218
43	12.00	1.218

301.30 Total Selenium		
Lab	PPM	ICP
24	<0.28	0.000
Median	0.00	0.000

301.XX Total Selenium		
Lab	PPM	Total Mthod
24	<0.28	0.000
Median	0.00	0.000

311.00 Sodium		
Lab	%Na <sub>2</sub> O	Atomic Absorbtion
61	0.20	0.000

Median	0.20	0.000
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311.99 Sodium		
Lab	%Na <sub>2</sub> O	Other
9	0.23	-0.737
23	0.22	-0.368
23	0.22	-0.368
24	0.21	0.000
24	0.21	0.000
Median	0.21	0.000
61	0.19	0.921
Std Dev	0.18	1.000
43	0.18	1.125
43	0.18	1.236

311.XX Sodium		
Lab	%Na <sub>2</sub> O	Total Method
9	0.23	-0.766
23	0.22	-0.383
23	0.22	-0.383
24	0.21	0.000
24	0.21	0.000
Median	0.21	0.000
61	0.20	0.383
61	0.19	0.957
Std Dev	0.18	1.000
43	0.18	1.169
43	0.18	1.285

321.00 Acid Soluble Zinc		
Lab		Atomic Absorption
219	169.50	0.000
Median	169.50	0.000

321.30 Acid Soluble Zinc		
Lab	PPM	ICP
9	186.00	-1.179
24	186.00	-1.179
Std Dev	184.33	-1.000
61	175.00	0.000
Median	175.00	0.000
61	173.50	0.161
219	169.00	0.643

321.99 Acid Soluble Zinc		
Lab		Other
275	180.00	-0.536
43	179.50	-0.383
Median	178.25	0.000
43	177.00	0.383
Std Dev	174.99	1.000
275	170.00	2.527

321.XX Acid Soluble Zinc		
Lab	PPM	Total Method
9	186.00	-1.489
24	186.00	-1.489
Std Dev	182.72	-1.000
275	180.00	-0.596
43	179.50	-0.521
43	177.00	-0.149
Median	176.00	0.000
61	175.00	0.149
61	173.50	0.372
275	170.00	0.893
219	169.50	0.968
Std Dev	169.28	1.000
219	169.00	1.042

325.10 Fluoride		
Lab	%	Electrode
9	2.66	-7.996
32	1.80	-0.439
23	1.79	-0.351
32	1.78	-0.220
24	1.77	-0.176
24	1.75	0.000
Median	1.75	0.000
23	1.74	0.132
34	1.65	0.879
31	1.61	1.230
14	1.50	2.241
14	1.49	2.285

325.99 Fluoride		
Lab	%	Other
61	1.83	-0.968
61	1.79	-0.571

Median	1.73	0.000
275	1.67	0.571
275	1.63	0.968

325.XX Fluoride		
Lab	%	Total Method
9	2.66	-8.267
61	1.83	-0.681
32	1.80	-0.454
23	1.79	-0.363
61	1.79	-0.318
32	1.78	-0.227
24	1.77	-0.182
24	1.75	0.000
Median	1.75	0.000
23	1.74	0.136
275	1.67	0.727
34	1.65	0.908
275	1.63	1.090
31	1.61	1.272
14	1.50	2.317
14	1.49	2.362