

# AFPC

**Sample**

**2010-04**

**Grade**

**10-40-0-10**

|  | AOAC Ref.  | Method # | # of Labs. | Grand Median | Std Dev |
|--|------------|----------|------------|--------------|---------|
| <b>AMMONIACAL NITROGEN</b>             |            |          |            |              |         |
| Ammoniacal Nitrogen, MgO distillation  | 920.03     | 001.10   | 2          | 11.61        | 0.25    |
| Ammoniacal Nitrogen, Other             |            | 001.99   | 13         | 11.89        | 0.05    |
| Method Group 001.XX PCT                |            |          | 15         | 11.89        | 0.08    |
| <b>NITRATE NITROGEN</b>                |            |          |            |              |         |
| Nitrate Nitrogen, Other                |            | 002.99   | 1          |              | 0.00    |
| Method Group 002.XX PCT                |            |          | 1          | 0.00         | 0.00    |
| <b>TOTAL NITROGEN</b>                  |            |          |            |              |         |
| Total Nitrogen, Modified Comprehensive | 978.02     | 010.11   | 2          | 12.00        | 0.01    |
| Total Nitrogen, Salicylic              | 955.04d    | 010.12   | 1          | 11.89        | 0.00    |
| Total Nitrogen, Combustion             | 993.13     | 010.60   | 22         | 11.89        | 0.09    |
| Total Nitrogen, Other                  |            | 010.99   | 3          | 11.91        | 0.03    |
| Method Group 010.XX PCT                |            |          | 28         | 11.90        | 0.11    |
| <b>TOTAL PHOSPHATE</b>                 |            |          |            |              |         |
| Total Phosphate, Gravimetric Quimociac |            | 020.10   | 2          | 41.75        | 0.35    |
| Total Phosphate, Spectrometric         | 978.02     | 020.20   | 23         | 41.13        | 0.16    |
| Total Phosphate, Alka. Quimociac       | 955.04d    | 020.30   | 1          | 40.84        | 0.00    |
| Total Phosphate, ICP                   | 970.03     | 020.40   | 1          | 42.93        | 0.00    |
| Total Phosphate, ICP, Lithium          | 970.02     | 020.50   | 1          | 41.00        | 0.00    |
| Total Phosphate, Other                 | 993.13     | 020.99   | 2          | 42.10        | 0.44    |
| Method Group 020.XX PCT                |            |          | 30         | 41.14        | 0.26    |
| <b>INSOLUBLE PHOSPHATE</b>             |            |          |            |              |         |
| Insoluble Phosphate, Spectrometric     | 963.03C(b) | 030.20   | 14         | 0.52         | 0.25    |
| Insoluble Phosphate, Alka. Quimociac   | 963.03C(c) | 030.30   | 1          | 0.25         | 0.00    |
| Insoluble Phosphate, Automated         | 978.01     | 030.40   | 1          | 0.49         | 0.00    |
| Insoluble Phosphate, ICP               |            | 030.50   | 1          | 0.37         | 0.00    |
| Insoluble Phosphate, Other             |            | 030.99   | 2          | 0.05         | 0.01    |
| Method Group 030.XX PCT                |            |          | 19         | 0.48         | 0.35    |

**INDIRECT AVAILABLE PHOSPHATE**

|   |        |        |    |       |      |
|---|--------|--------|----|-------|------|
| Indirect Available Phosphate, Spectrometric | 960.02 | 040.20 | 15 | 40.64 | 0.23 |
| Indirect Available Phosphate, Automated     | 960.02 | 040.40 | 1  | 42.86 | 0.00 |
| Indirect Available Phosphate, ICP           |        | 040.50 | 1  | 40.63 | 0.00 |
| Indirect Available Phosphate, Other         |        | 040.99 | 2  | 41.07 | 0.30 |
| Method Group 040.XX PCT                     |        |        | 19 | 40.65 | 0.34 |

**DIRECT AVAILABLE PHOSPHATE**

|   |         |        |    |       |      |
|---|---------|--------|----|-------|------|
| Direct Available Phosphate, Gravimetric Quimociac | 960.03E | 041.10 | 3  | 40.61 | 0.38 |
| Direct Available Phosphate, Spectrometric         | 960.03D | 041.20 | 2  | 40.62 | 0.19 |
| Direct Available Phosphate, Automated             | 978.01  | 041.40 | 3  | 40.99 | 0.46 |
| Direct Available Phosphate, ICP                   |         | 041.50 | 3  | 39.75 | 0.12 |
| Direct Available Phosphate, EDTA Extract          | 993.01  | 041.60 | 5  | 39.73 | 0.19 |
| Direct Available Phosphate, Other                 |         | 041.99 | 3  | 40.20 | 8.12 |
| Method Group 041.XX PCT                           |         |        | 19 | 40.09 | 0.78 |

**WATER SOLUBLE PHOSPHATE**

|  |        |        |    |       |      |
|--|--------|--------|----|-------|------|
| Water Soluble Phosphate, Spectrometric | 970.01 | 048.20 | 15 | 35.71 | 0.24 |
| Water Soluble Phosphate, Other         |        | 048.99 | 3  | 35.61 | 0.09 |
| Method Group 048.XX PCT                |        |        | 18 | 35.69 | 0.26 |

**SOLUBLE POTASH AS K<sub>2</sub>O**

|                              |  |        |    |      |      |
|------------------------------|--|--------|----|------|------|
| Soluble Potash, ICP(Oxalate) |  | 050.50 | 3  | 0.12 | 0.01 |
| Soluble Potash, Other        |  | 050.99 | 7  | 0.13 | 0.05 |
| Method Group 050.XX PCT      |  |        | 10 | 0.12 | 0.01 |

**FREE WATER**

|                              |         |        |    |      |      |
|------------------------------|---------|--------|----|------|------|
| Free Water, Vacuum Oven      | 965.08B | 060.00 | 19 | 0.64 | 0.13 |
| Free Water, Vacuum Desiccate | 965.08A | 060.10 | 3  | 0.49 | 0.07 |
| Method Group 060.XX PCT      |         |        | 22 | 0.59 | 0.19 |

**ACID SOLUBLE CALCIUM AS CaO**

|   |        |        |    |      |      |
|---|--------|--------|----|------|------|
| Acid Soluble Calcium, Atomic Absorption | 945.04 | 101.00 | 1  | 0.29 | 0.00 |
| Acid Soluble Calcium, ICP               |        | 101.30 | 17 | 0.35 | 0.02 |
| Method Group 101.XX PCT                 |        |        | 18 | 0.35 | 0.03 |

**ACID SOLUBLE MAGNESIUM AS MgO**

|   |        |        |    |      |      |
|---|--------|--------|----|------|------|
| Acid Soluble Magnesium, Atomic Absorption | 984.01 | 121.00 | 2  | 1.04 | 0.21 |
| Acid Soluble Magnesium, ICP               |        | 121.30 | 17 | 0.76 | 0.03 |

|  |           |        |    |       |      |
|--|-----------|--------|----|-------|------|
| Method Group 121.XX PCT                        |           |        | 19 | 0.76  | 0.03 |
| <b>SULFATE SULFUR (S)</b>                      |           |        |    |       |      |
| Sulfur, Gravimetric                            | 980.02(a) | 144.01 | 5  | 8.65  | 2.37 |
| Sulfur, Spectrometric                          |           | 144.70 | 2  | 9.60  | 0.00 |
| Sulfur, Other                                  |           | 144.99 | 10 | 5.15  | 0.08 |
| Method Group 144.XX PCT                        |           |        | 17 | 5.24  | 3.27 |
| <b>TOTAL SULFUR (S)</b>                        |           |        |    |       |      |
| Sulfur, Other                                  |           | 145.99 | 14 | 10.12 | 1.55 |
| Method Group 145.XX PCT                        |           |        | 14 | 10.12 | 1.89 |
| <b>TOTAL ARSENIC</b>                           |           |        |    |       |      |
| Total Arsenic, ICP                             | 980.02(b) | 151.02 | 4  | 4     | 6.6  |
| Method Group 151.XX PPM                        |           |        | 4  | 4     | 8.1  |
| <b>ACID SOLUBLE BORON</b>                      |           |        |    |       |      |
| Acid Soluble Boron, Other                      |           | 165.99 | 2  | 36    | 0.0  |
| Method Group 165.XX PPM                        |           |        | 2  | 36    | 0.0  |
| <b>TOTAL CADMIUM</b>                           |           |        |    |       |      |
| Total Cadmium, ICP                             |           | 181.30 | 8  | 3     | 0.6  |
| Total Cadmium, Other                           |           | 181.99 | 1  | 3     | 0.0  |
| Method Group 181.XX PPM                        |           |        | 9  | 3     | 0.5  |
| <b>ALUMINUM AS Al<sub>2</sub>O<sub>3</sub></b> |           |        |    |       |      |
| ICP, %   |           |        | 16 | 1.37  | 0.04 |
| Water Soluble Chlorine, Other, %               |           | 190.99 | 2  | 1.94  | 0.46 |
| Method Group 190.XX PCT                        |           |        | 18 | 1.37  | 0.05 |
| <b>TOTAL CHROMIUM</b>                          |           |        |    |       |      |
| Total Chromium, ICP                            |           | 191.30 | 10 | 66    | 3.2  |
| Total Chromium, Other                          |           | 191.99 | 1  | 63    | 0.0  |
| Method Group 191.XX PPM                        |           |        | 11 | 65    | 4.3  |
| <b>ACID SOLUBLE COBALT</b>                     |           |        |    |       |      |
| Acid Soluble Cobalt, ICP                       |           | 202.30 | 8  | 3     | 0.2  |
| Acid Soluble Cobalt, Other                     |           | 202.99 | 1  | 3     | 0.0  |
| Method Group 202.XX PPM                        |           |        | 9  | 3     | 0.3  |
| <b>ACID SOLUBLE COPPER</b>                     |           |        |    |       |      |
| Acid Soluble Copper, Atomic Absorption         | 975.01    | 221.00 | 2  | 1     | 0.6  |

|   |         |        |    |      |      |
|---|---------|--------|----|------|------|
| Acid Soluble Copper, ICP                                |         | 221.30 | 7  | 2    | 0.7  |
| Acid Soluble Copper, Other                              |         | 221.99 | 1  | 0    | 0.0  |
| Method Group 221.XX PPM                                 |         |        | 9  | 2    | 0.9  |
| <b>ACID SOLUBLE IRON AS Fe<sub>2</sub>O<sub>3</sub></b> |         |        |    |      |      |
| Acid Soluble Iron, ICP                                  |         | 241.30 | 18 | 1.47 | 0.06 |
| Method Group 241.XX PCT                                 |         |        | 20 | 1.47 | 0.08 |
| <b>TOTAL LEAD</b>                                       |         |        |    |      |      |
| Total Lead, ICP   |         | 251.30 | 6  | 2    | 1.0  |
| Total Lead, Other                                       |         | 251.99 | 1  | 2    | 0.0  |
| Method Group 251.XX PPM                                 |         |        | 7  | 2    | 0.9  |
| <b>ACID SOLUBLE MANGANESE</b>                           |         |        |    |      |      |
| Acid Soluble Manganese, Atomic Absorption               | 972.02a | 261.00 | 1  | 0    | 0.0  |
| Acid Soluble Manganese, ICP                             | 972.02a | 261.30 | 4  | 280  | 14.9 |
| Acid Soluble Manganese, Other                           |         | 261.99 | 5  | 276  | 18.7 |
| Method Group 261.XX PPM                                 |         |        | 10 | 275  | 26.3 |
| <b>WATER SOLUBLE MANGANESE</b>                          |         |        |    |      |      |
| Water Soluble Manganese, ICP                            | 972.03  | 271.30 | 1  | 287  | 0    |
| Method Group 271.XX PCT                                 |         |        | 1  | 287  | 0.0  |
| <b>TOTAL MOLYBDENUM</b>                                 |         |        |    |      |      |
| Total Molybdenum, ICP                                   |         | 289.30 | 9  | 12   | 0.7  |
| Total Molybdenum, Other                                 |         | 289.99 | 1  | 11   | 0.0  |
| Method Group 289.XX PPM                                 |         |        | 10 | 12   | 0.8  |
| <b>TOTAL NICKEL</b>                                     |         |        |    |      |      |
| Total Nickel, ICP                                       |         | 291.30 | 9  | 14   | 0.4  |
| Total Nickel, Other                                     |         | 291.99 | 1  | 16   | 0.0  |
| Method Group 291.XX PPM                                 |         |        | 10 | 14   | 1.1  |
| <b>SODIUM AS Na<sub>2</sub>O</b>                        |         |        |    |      |      |
| Sodium, Atomic Absorption                               | 983.04  | 311.00 | 1  | 0.16 | 0.00 |
| Sodium, Other   |         | 311.99 | 9  | 0.16 | 0.02 |
| Method Group 311.XX PCT                                 |         |        | 10 | 0.16 | 0.02 |
| <b>ACID SOLUBLE ZINC</b>                                |         |        |    |      |      |
| Acid Soluble Zinc, Atomic Absorption                    | 975.02  | 321.00 | 1  | 0.5  | 0.0  |
| Acid Soluble Zinc, ICP                                  |         | 321.30 | 14 | 1.0  | 0.0  |

|                          |        |    |      |      |
|--------------------------|--------|----|------|------|
| Acid Soluble Zinc, Other | 321.99 | 2  | 0.9  | 0.0  |
| Method Group 321.XX %    |        | 17 | 1.0  | 0.1  |
| <hr/>                    |        |    |      |      |
| <b>FLUORIDE</b>          |        |    |      |      |
| Volumetric               | 325.10 | 15 | 1.68 | 0.10 |
| Distilled/Electrode      | 325.99 | 3  | 1.67 | 0.13 |
| Method Group 325.XX PCT  |        | 18 | 1.68 | 0.11 |
| <hr/>                    |        |    |      |      |