



Swine Feed

Minerals Scheme

# Labs Reporting: 24

Test Material Code # 201753

Analyte Proficiency Testing Report

Issue Date : 10/31/2017

| Method Group | Analyte Group (Units)    | Lab Code | Lab Data |         | Method Values |            |         |         | AAFCO PT Z Score | Your Method | Flag |
|--------------|--------------------------|----------|----------|---------|---------------|------------|---------|---------|------------------|-------------|------|
|              |                          |          | Value    | Range   | Rob Mean      | Horwitz SD | R-bar   | # Tests |                  |             |      |
| 015          | Aluminum (mg / kg (ppm)) | 0186     | 104.50   | 17.000  | 180.91        | 13.236     | 10.838  | 17      | -5.77            | 015.52      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 0870     | 131.95   | 5.1000  | 180.91        | 13.236     | 10.838  | 17      | -3.70            | 015.42      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 2051     | 141.62   | 0.03000 | 180.91        | 13.236     | 10.838  | 17      | -2.97            | 015.53      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 2113     | 155.00   | 30.000  | 180.91        | 13.236     | 10.838  | 17      | -1.96            | 015.52      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 2058     | 157.03   | 17.090  | 180.91        | 13.236     | 10.838  | 17      | -1.80            | 015.43      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 0047     | 160.85   | 0.30000 | 180.91        | 13.236     | 10.838  | 17      | -1.52            | 015.52      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 0042     | 163.50   | 13.000  | 180.91        | 13.236     | 10.838  | 17      | -1.32            | 015.42      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 2129     | 164.60   | 5.0000  | 180.91        | 13.236     | 10.838  | 17      | -1.23            | 015.42      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 0918     | 169.51   | 20.415  | 180.91        | 13.236     | 10.838  | 17      | -0.86            | 015.43      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 0407     | 186.37   | 3.9099  | 180.91        | 13.236     | 10.838  | 17      | 0.41             | 015.41      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 0510     | 190.50   | 1.0000  | 180.91        | 13.236     | 10.838  | 17      | 0.72             | 015.43      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 0098     | 205.55   | 25.100  | 180.91        | 13.236     | 10.838  | 17      | 1.86             | 015.43      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 0964     | 208.39   | 0.59290 | 180.91        | 13.236     | 10.838  | 17      | 2.08             | 015.41      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 0870     | 221.85   | 10.700  | 180.91        | 13.236     | 10.838  | 17      | 3.09             | 015.43      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 0208     | 229.00   | 8.0000  | 180.91        | 13.236     | 10.838  | 17      | 3.63             | 015.41      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 0227     | 234.50   | 11.000  | 180.91        | 13.236     | 10.838  | 17      | 4.05             | 015.43      | 0    |
| 015          | Aluminum (mg / kg (ppm)) | 2033     | 237.00   | 16.000  | 180.91        | 13.236     | 10.838  | 17      | 4.24             | 015.43      | 0    |
| 017          | Boron (mg / kg (ppm))    | 2051     | 0.01400  | 0.00000 | 136.09        | 10.393     | 2.2691  | 12      | -13.09           | 017.42      | 0    |
| 017          | Boron (mg / kg (ppm))    | 0870     | 123.90   | 3.8000  | 136.09        | 10.393     | 2.2691  | 12      | -1.17            | 017.42      | 0    |
| 017          | Boron (mg / kg (ppm))    | 0047     | 126.30   | 1.0000  | 136.09        | 10.393     | 2.2691  | 12      | -0.94            | 017.52      | 0    |
| 017          | Boron (mg / kg (ppm))    | 0407     | 127.47   | 0.82940 | 136.09        | 10.393     | 2.2691  | 12      | -0.83            | 017.41      | 0    |
| 017          | Boron (mg / kg (ppm))    | 0870     | 127.50   | 1.8000  | 136.09        | 10.393     | 2.2691  | 12      | -0.83            | 017.43      | 0    |
| 017          | Boron (mg / kg (ppm))    | 0043     | 129.50   | 5.0000  | 136.09        | 10.393     | 2.2691  | 12      | -0.63            | 017.43      | 0    |
| 017          | Boron (mg / kg (ppm))    | 0098     | 139.20   | 0.60000 | 136.09        | 10.393     | 2.2691  | 12      | 0.30             | 017.43      | 0    |
| 017          | Boron (mg / kg (ppm))    | 2129     | 144.00   | 1.2000  | 136.09        | 10.393     | 2.2691  | 12      | 0.76             | 017.42      | 0    |
| 017          | Boron (mg / kg (ppm))    | 0510     | 145.00   | 0.00000 | 136.09        | 10.393     | 2.2691  | 12      | 0.86             | 017.43      | 0    |
| 017          | Boron (mg / kg (ppm))    | 0918     | 148.07   | 6.0000  | 136.09        | 10.393     | 2.2691  | 12      | 1.15             | 017.43      | 0    |
| 017          | Boron (mg / kg (ppm))    | 2113     | 150.00   | 0.00000 | 136.09        | 10.393     | 2.2691  | 12      | 1.34             | 017.52      | 0    |
| 017          | Boron (mg / kg (ppm))    | 2033     | 159.50   | 7.0000  | 136.09        | 10.393     | 2.2691  | 12      | 2.25             | 017.43      | 0    |
| 021          | Cobalt (mg / kg (ppm))   | 0870     | 4.0130   | 0.06800 | 6.1907        | 0.75268    | 0.14555 | 20      | -2.89            | 021.42      | 0    |
| 021          | Cobalt (mg / kg (ppm))   | 0870     | 4.7690   | 0.01600 | 6.1907        | 0.75268    | 0.14555 | 20      | -1.89            | 021.43      | 0    |
| 021          | Cobalt (mg / kg (ppm))   | 2113     | 5.5500   | 0.10000 | 6.1907        | 0.75268    | 0.14555 | 20      | -0.85            | 021.52      | 0    |
| 021          | Cobalt (mg / kg (ppm))   | 0227     | 5.6500   | 0.30000 | 6.1907        | 0.75268    | 0.14555 | 20      | -0.72            | 021.31      | 0    |

| Method Group | Analyte Group (Units)  | Lab Code | Lab Data |         | Method Values |            |         |         | AAFCO PT | Your   | Flag |
|--------------|------------------------|----------|----------|---------|---------------|------------|---------|---------|----------|--------|------|
|              |                        |          | Value    | Range   | Rob Mean      | Horwitz SD | R-bar   | # Tests | Z Score  | Method |      |
| 021          | Cobalt (mg / kg (ppm)) | 0407     | 5.6748   | 0.08420 | 6.1907        | 0.75268    | 0.14555 | 20      | -0.69    | 021.41 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 0047     | 5.6800   | 0.24000 | 6.1907        | 0.75268    | 0.14555 | 20      | -0.68    | 021.52 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 0043     | 6.0000   | 0.06000 | 6.1907        | 0.75268    | 0.14555 | 20      | -0.25    | 021.43 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 0918     | 6.1181   | 0.09720 | 6.1907        | 0.75268    | 0.14555 | 20      | -0.10    | 021.53 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 0033     | 6.1200   | 0.18000 | 6.1907        | 0.75268    | 0.14555 | 20      | -0.09    | 021.53 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 0964     | 6.2380   | 0.26000 | 6.1907        | 0.75268    | 0.14555 | 20      | 0.06     | 021.43 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 0186     | 6.2450   | 0.15000 | 6.1907        | 0.75268    | 0.14555 | 20      | 0.07     | 021.52 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 0042     | 6.3200   | 0.36000 | 6.1907        | 0.75268    | 0.14555 | 20      | 0.17     | 021.42 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 0510     | 6.4200   | 0.02000 | 6.1907        | 0.75268    | 0.14555 | 20      | 0.30     | 021.43 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 2033     | 6.4700   | 0.30000 | 6.1907        | 0.75268    | 0.14555 | 20      | 0.37     | 021.43 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 0098     | 6.4910   | 0.04600 | 6.1907        | 0.75268    | 0.14555 | 20      | 0.40     | 021.43 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 0964     | 6.5671   | 0.05670 | 6.1907        | 0.75268    | 0.14555 | 20      | 0.50     | 021.41 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 2141     | 6.5800   | 0.22000 | 6.1907        | 0.75268    | 0.14555 | 20      | 0.52     | 021.43 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 0027     | 6.9480   | 0.01600 | 6.1907        | 0.75268    | 0.14555 | 20      | 1.01     | 021.43 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 2051     | 7.1250   | 0.19000 | 6.1907        | 0.75268    | 0.14555 | 20      | 1.24     | 021.53 | 0    |
| 021          | Cobalt (mg / kg (ppm)) | 0563     | 7.5430   | 0.14680 | 6.1907        | 0.75268    | 0.14555 | 20      | 1.80     | 021.31 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0047     | 438.10   | 16.600  | 541.31        | 33.581     | 18.907  | 25      | -3.07    | 022.52 | 0    |
| 022          | Copper (mg / kg (ppm)) | 2051     | 493.11   | 3.9800  | 541.31        | 33.581     | 18.907  | 25      | -1.44    | 022.53 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0043     | 495.50   | 11.000  | 541.31        | 33.581     | 18.907  | 25      | -1.36    | 022.43 | 0    |
| 022          | Copper (mg / kg (ppm)) | 2129     | 505.20   | 30.200  | 541.31        | 33.581     | 18.907  | 25      | -1.08    | 022.42 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0202     | 508.85   | 19.282  | 541.31        | 33.581     | 18.907  | 25      | -0.97    | 022.43 | 0    |
| 022          | Copper (mg / kg (ppm)) | 2113     | 510.00   | 20.000  | 541.31        | 33.581     | 18.907  | 25      | -0.93    | 022.52 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0407     | 515.42   | 2.9600  | 541.31        | 33.581     | 18.907  | 25      | -0.77    | 022.41 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0964     | 519.00   | 5.5923  | 541.31        | 33.581     | 18.907  | 25      | -0.66    | 022.41 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0186     | 529.50   | 13.000  | 541.31        | 33.581     | 18.907  | 25      | -0.35    | 022.52 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0227     | 535.00   | 20.000  | 541.31        | 33.581     | 18.907  | 25      | -0.19    | 022.41 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0870     | 536.10   | 15.400  | 541.31        | 33.581     | 18.907  | 25      | -0.16    | 022.42 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0208     | 538.10   | 13.000  | 541.31        | 33.581     | 18.907  | 25      | -0.10    | 022.41 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0510     | 545.50   | 9.0000  | 541.31        | 33.581     | 18.907  | 25      | 0.12     | 022.43 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0870     | 546.75   | 12.700  | 541.31        | 33.581     | 18.907  | 25      | 0.16     | 022.43 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0563     | 547.12   | 18.338  | 541.31        | 33.581     | 18.907  | 25      | 0.17     | 022.31 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0042     | 547.50   | 55.000  | 541.31        | 33.581     | 18.907  | 25      | 0.18     | 022.42 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0098     | 551.95   | 1.9000  | 541.31        | 33.581     | 18.907  | 25      | 0.32     | 022.53 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0027     | 553.56   | 47.874  | 541.31        | 33.581     | 18.907  | 25      | 0.36     | 022.43 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0208     | 558.00   | 0.00000 | 541.31        | 33.581     | 18.907  | 25      | 0.50     | 022.31 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0918     | 570.41   | 24.820  | 541.31        | 33.581     | 18.907  | 25      | 0.87     | 022.43 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0964     | 570.85   | 28.598  | 541.31        | 33.581     | 18.907  | 25      | 0.88     | 022.43 | 0    |
| 022          | Copper (mg / kg (ppm)) | 2141     | 580.00   | 12.000  | 541.31        | 33.581     | 18.907  | 25      | 1.15     | 022.43 | 0    |
| 022          | Copper (mg / kg (ppm)) | 2033     | 598.00   | 40.000  | 541.31        | 33.581     | 18.907  | 25      | 1.69     | 022.43 | 0    |
| 022          | Copper (mg / kg (ppm)) | 0186     | 613.50   | 31.000  | 541.31        | 33.581     | 18.907  | 25      | 2.15     | 022.42 | 0    |
| 022          | Copper (mg / kg (ppm)) | 2058     | 680.41   | 20.430  | 541.31        | 33.581     | 18.907  | 25      | 4.14     | 022.43 | 0    |

| Method Group | Analyte Group (Units)    | Lab Code | Lab Data |         | Method Values |            |         |         | AAFCO PT | Your   | Flag |
|--------------|--------------------------|----------|----------|---------|---------------|------------|---------|---------|----------|--------|------|
|              |                          |          | Value    | Range   | Rob Mean      | Horwitz SD | R-bar   | # Tests | Z Score  | Method |      |
| 022          | Copper (mg / kg (ppm))   | 0010     | 56.250   | 2.3000  | 541.31        | 33.581     | 18.907  | 25      | -14.44   | 022.33 | 2    |
| 023          | Fluorine (mg / kg (ppm)) | 2033     | 162.00   | 2.0000  |               |            | 3.5000  | 2       |          | 023.01 | 0    |
| 023          | Fluorine (mg / kg (ppm)) | 0208     | 171.50   | 5.0000  |               |            | 3.5000  | 2       |          | 023.01 | 0    |
| 024          | Iodine (mg / kg (ppm))   | 0208     | 5.7000   | 0.32000 | 6.7500        | 0.81007    | 0.15333 | 3       |          | 024.99 | 0    |
| 024          | Iodine (mg / kg (ppm))   | 0186     | 7.0000   | 0.00000 | 6.7500        | 0.81007    | 0.15333 | 3       |          | 024.01 | 0    |
| 024          | Iodine (mg / kg (ppm))   | 2033     | 7.5500   | 0.14000 | 6.7500        | 0.81007    | 0.15333 | 3       |          | 024.53 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0563     | 1.4527   | 0.44620 | 2.3522        | 0.33082    | 0.18419 | 17      | -2.72    | 034.04 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 2051     | 1.6400   | 0.02000 | 2.3522        | 0.33082    | 0.18419 | 17      | -2.15    | 034.53 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 2033     | 1.7750   | 0.09000 | 2.3522        | 0.33082    | 0.18419 | 17      | -1.74    | 034.53 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0098     | 1.8375   | 0.17100 | 2.3522        | 0.33082    | 0.18419 | 17      | -1.56    | 034.53 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0186     | 1.8750   | 0.05000 | 2.3522        | 0.33082    | 0.18419 | 17      | -1.44    | 034.52 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0047     | 1.9200   | 0.02000 | 2.3522        | 0.33082    | 0.18419 | 17      | -1.31    | 034.52 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0033     | 2.0750   | 0.37000 | 2.3522        | 0.33082    | 0.18419 | 17      | -0.84    | 034.53 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0227     | 2.1500   | 0.04000 | 2.3522        | 0.33082    | 0.18419 | 17      | -0.61    | 034.04 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0964     | 2.1698   | 0.03120 | 2.3522        | 0.33082    | 0.18419 | 17      | -0.55    | 034.43 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0208     | 2.2000   | 0.06000 | 2.3522        | 0.33082    | 0.18419 | 17      | -0.46    | 034.52 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0918     | 2.3657   | 0.05790 | 2.3522        | 0.33082    | 0.18419 | 17      | 0.04     | 034.53 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 2058     | 2.4350   | 0.07000 | 2.3522        | 0.33082    | 0.18419 | 17      | 0.25     | 034.53 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 2113     | 2.8500   | 0.10000 | 2.3522        | 0.33082    | 0.18419 | 17      | 1.50     | 034.52 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0027     | 2.8915   | 0.00300 | 2.3522        | 0.33082    | 0.18419 | 17      | 1.63     | 034.43 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 2141     | 3.5500   | 0.44000 | 2.3522        | 0.33082    | 0.18419 | 17      | 3.62     | 034.43 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0870     | 3.7000   | 1.1520  | 2.3522        | 0.33082    | 0.18419 | 17      | 4.07     | 034.43 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0870     | 3.9250   | 0.01000 | 2.3522        | 0.33082    | 0.18419 | 17      | 4.75     | 034.42 | 0    |
| 034          | Selenium (mg / kg (ppm)) | 0042     | 25.600   | 2.2000  | 2.3522        | 0.33082    | 0.18419 | 17      | 70.27    | 034.42 | 2    |
| 036          | Sulfur (%)               | 2129     | 0.45645  | 0.00690 | 0.52332       | 0.02307    | 0.00952 | 17      | -2.90    | 036.42 | 0    |
| 036          | Sulfur (%)               | 0098     | 0.48300  | 0.00200 | 0.52332       | 0.02307    | 0.00952 | 17      | -1.75    | 036.43 | 0    |
| 036          | Sulfur (%)               | 0870     | 0.48540  | 0.00180 | 0.52332       | 0.02307    | 0.00952 | 17      | -1.64    | 036.42 | 0    |
| 036          | Sulfur (%)               | 2051     | 0.48650  | 0.01100 | 0.52332       | 0.02307    | 0.00952 | 17      | -1.60    | 036.42 | 0    |
| 036          | Sulfur (%)               | 0027     | 0.49350  | 0.00100 | 0.52332       | 0.02307    | 0.00952 | 17      | -1.29    | 036.43 | 0    |
| 036          | Sulfur (%)               | 0186     | 0.51600  | 0.00600 | 0.52332       | 0.02307    | 0.00952 | 17      | -0.32    | 036.42 | 0    |
| 036          | Sulfur (%)               | 0964     | 0.51885  | 0.00270 | 0.52332       | 0.02307    | 0.00952 | 17      | -0.19    | 036.43 | 0    |
| 036          | Sulfur (%)               | 2141     | 0.51935  | 0.00830 | 0.52332       | 0.02307    | 0.00952 | 17      | -0.17    | 036.43 | 0    |
| 036          | Sulfur (%)               | 0202     | 0.52050  | 0.00100 | 0.52332       | 0.02307    | 0.00952 | 17      | -0.12    | 036.43 | 0    |
| 036          | Sulfur (%)               | 0227     | 0.52500  | 0.03000 | 0.52332       | 0.02307    | 0.00952 | 17      | 0.07     | 036.42 | 0    |
| 036          | Sulfur (%)               | 0918     | 0.52900  | 0.00400 | 0.52332       | 0.02307    | 0.00952 | 17      | 0.25     | 036.43 | 0    |
| 036          | Sulfur (%)               | 0010     | 0.53500  | 0.03000 | 0.52332       | 0.02307    | 0.00952 | 17      | 0.51     | 036.43 | 0    |
| 036          | Sulfur (%)               | 0186     | 0.54300  | 0.02200 | 0.52332       | 0.02307    | 0.00952 | 17      | 0.85     | 036.52 | 0    |
| 036          | Sulfur (%)               | 0407     | 0.55820  | 0.00120 | 0.52332       | 0.02307    | 0.00952 | 17      | 1.51     | 036.42 | 0    |
| 036          | Sulfur (%)               | 0208     | 0.56650  | 0.00500 | 0.52332       | 0.02307    | 0.00952 | 17      | 1.87     | 036.00 | 0    |
| 036          | Sulfur (%)               | 0510     | 0.57000  | 0.00000 | 0.52332       | 0.02307    | 0.00952 | 17      | 2.02     | 036.43 | 0    |
| 036          | Sulfur (%)               | 2033     | 0.59850  | 0.02900 | 0.52332       | 0.02307    | 0.00952 | 17      | 3.26     | 036.43 | 0    |

| Method Group | Analyte Group (Units)          | Lab Code | Lab Data |         | Method Values |            |         |         | AAFCO PT | Your   | Flag |
|--------------|--------------------------------|----------|----------|---------|---------------|------------|---------|---------|----------|--------|------|
|              |                                |          | Value    | Range   | Rob Mean      | Horwitz SD | R-bar   | # Tests | Z Score  | Method |      |
| 038          | Molybdenum (mg / kg (ppm))     | 0870     | 0.99085  | 0.01830 | 2.0093        | 0.28938    | 0.05991 | 19      | -3.52    | 038.42 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0208     | 1.6350   | 0.03000 | 2.0093        | 0.28938    | 0.05991 | 19      | -1.29    | 038.41 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0407     | 1.6658   | 0.05820 | 2.0093        | 0.28938    | 0.05991 | 19      | -1.19    | 038.41 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0047     | 1.8350   | 0.05000 | 2.0093        | 0.28938    | 0.05991 | 19      | -0.60    | 038.52 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0098     | 1.8675   | 0.14500 | 2.0093        | 0.28938    | 0.05991 | 19      | -0.49    | 038.53 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0042     | 1.9150   | 0.13000 | 2.0093        | 0.28938    | 0.05991 | 19      | -0.33    | 038.42 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0964     | 1.9264   | 0.00670 | 2.0093        | 0.28938    | 0.05991 | 19      | -0.29    | 038.43 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0918     | 1.9374   | 0.03100 | 2.0093        | 0.28938    | 0.05991 | 19      | -0.25    | 038.53 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0964     | 1.9379   | 0.01660 | 2.0093        | 0.28938    | 0.05991 | 19      | -0.25    | 038.41 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0033     | 2.0000   | 0.02000 | 2.0093        | 0.28938    | 0.05991 | 19      | -0.03    | 038.53 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0027     | 2.0080   | 0.04000 | 2.0093        | 0.28938    | 0.05991 | 19      | 0.00     | 038.43 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 2141     | 2.0650   | 0.01000 | 2.0093        | 0.28938    | 0.05991 | 19      | 0.19     | 038.43 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 2113     | 2.1000   | 0.00000 | 2.0093        | 0.28938    | 0.05991 | 19      | 0.31     | 038.52 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0010     | 2.1500   | 0.10000 | 2.0093        | 0.28938    | 0.05991 | 19      | 0.49     | 038.53 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 2033     | 2.1900   | 0.06000 | 2.0093        | 0.28938    | 0.05991 | 19      | 0.62     | 038.43 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0227     | 2.2500   | 0.10000 | 2.0093        | 0.28938    | 0.05991 | 19      | 0.83     | 038.33 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 2051     | 2.2750   | 0.03000 | 2.0093        | 0.28938    | 0.05991 | 19      | 0.92     | 038.53 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0510     | 2.4000   | 0.20000 | 2.0093        | 0.28938    | 0.05991 | 19      | 1.35     | 038.43 | 0    |
| 038          | Molybdenum (mg / kg (ppm))     | 0563     | 2.5735   | 0.09250 | 2.0093        | 0.28938    | 0.05991 | 19      | 1.95     | 038.34 | 0    |
| 041          | Vanadium (mg / kg (ppm))       | 2033     | 0.76800  | 0.05200 | 1.4947        | 0.22507    | 0.06253 | 8       | -3.23    | 041.43 | 0    |
| 041          | Vanadium (mg / kg (ppm))       | 0047     | 0.99500  | 0.01000 | 1.4947        | 0.22507    | 0.06253 | 8       | -2.22    | 041.52 | 0    |
| 041          | Vanadium (mg / kg (ppm))       | 2113     | 1.1000   | 0.00000 | 1.4947        | 0.22507    | 0.06253 | 8       | -1.75    | 041.52 | 0    |
| 041          | Vanadium (mg / kg (ppm))       | 0043     | 1.1250   | 0.15000 | 1.4947        | 0.22507    | 0.06253 | 8       | -1.64    | 041.43 | 0    |
| 041          | Vanadium (mg / kg (ppm))       | 0098     | 1.2635   | 0.03900 | 1.4947        | 0.22507    | 0.06253 | 8       | -1.03    | 041.43 | 0    |
| 041          | Vanadium (mg / kg (ppm))       | 0563     | 1.4318   | 0.07920 | 1.4947        | 0.22507    | 0.06253 | 8       | -0.28    | 041.34 | 0    |
| 041          | Vanadium (mg / kg (ppm))       | 0870     | 2.5330   | 0.12800 | 1.4947        | 0.22507    | 0.06253 | 8       | 4.61     | 041.42 | 0    |
| 041          | Vanadium (mg / kg (ppm))       | 0870     | 2.8780   | 0.04200 | 1.4947        | 0.22507    | 0.06253 | 8       | 6.15     | 041.43 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0563     | 0.93890  | 0.17240 | 1.3618        | 0.20795    | 0.12421 | 18      | -2.03    | 516.00 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 2051     | 1.0350   | 0.03000 | 1.3618        | 0.20795    | 0.12421 | 18      | -1.57    | 516.53 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0227     | 1.1150   | 0.07000 | 1.3618        | 0.20795    | 0.12421 | 18      | -1.19    | 516.53 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0918     | 1.1594   | 0.00740 | 1.3618        | 0.20795    | 0.12421 | 18      | -0.97    | 516.53 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0047     | 1.1600   | 0.02000 | 1.3618        | 0.20795    | 0.12421 | 18      | -0.97    | 516.52 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0964     | 1.2293   | 0.09600 | 1.3618        | 0.20795    | 0.12421 | 18      | -0.64    | 516.43 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0186     | 1.2300   | 0.02000 | 1.3618        | 0.20795    | 0.12421 | 18      | -0.63    | 516.52 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0208     | 1.2400   | 0.02000 | 1.3618        | 0.20795    | 0.12421 | 18      | -0.59    | 516.52 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0098     | 1.2560   | 0.09200 | 1.3618        | 0.20795    | 0.12421 | 18      | -0.51    | 516.53 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 2033     | 1.2850   | 0.17000 | 1.3618        | 0.20795    | 0.12421 | 18      | -0.37    | 516.53 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0033     | 1.3000   | 0.16000 | 1.3618        | 0.20795    | 0.12421 | 18      | -0.30    | 516.53 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 2113     | 1.4000   | 0.00000 | 1.3618        | 0.20795    | 0.12421 | 18      | 0.18     | 516.52 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0010     | 1.4500   | 0.30000 | 1.3618        | 0.20795    | 0.12421 | 18      | 0.42     | 516.53 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 2141     | 1.5400   | 0.40000 | 1.3618        | 0.20795    | 0.12421 | 18      | 0.86     | 516.43 | 0    |



| Method Group | Analyte Group (Units)          | Lab Code | Lab Data |         | Method Values |            |         |         | AAFCO PT | Your   | Flag |
|--------------|--------------------------------|----------|----------|---------|---------------|------------|---------|---------|----------|--------|------|
|              |                                |          | Value    | Range   | Rob Mean      | Horwitz SD | R-bar   | # Tests | Z Score  | Method |      |
| 516          | Arsenic, total (mg / kg (ppm)) | 2058     | 1.6750   | 0.15000 | 1.3618        | 0.20795    | 0.12421 | 18      | 1.51     | 516.53 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0043     | 3.1000   | 0.20000 | 1.3618        | 0.20795    | 0.12421 | 18      | 8.36     | 516.43 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0870     | 4.3900   | 0.16400 | 1.3618        | 0.20795    | 0.12421 | 18      | 14.56    | 516.42 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0870     | 4.3900   | 0.16400 | 1.3618        | 0.20795    | 0.12421 | 18      | 14.56    | 516.43 | 0    |
| 516          | Arsenic, total (mg / kg (ppm)) | 0042     | 16.150   | 0.70000 | 1.3618        | 0.20795    | 0.12421 | 18      | 71.12    | 516.42 | 2    |
| 518          | Cadmium (mg / kg (ppm))        | 0407     | 0.38275  | 0.01730 | 0.56263       | 0.09814    | 0.03325 | 18      | -1.83    | 518.41 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0043     | 0.41950  | 0.00300 | 0.56263       | 0.09814    | 0.03325 | 18      | -1.46    | 518.43 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 2051     | 0.43500  | 0.01000 | 0.56263       | 0.09814    | 0.03325 | 18      | -1.30    | 518.53 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0047     | 0.44500  | 0.01000 | 0.56263       | 0.09814    | 0.03325 | 18      | -1.20    | 518.52 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0227     | 0.51450  | 0.05700 | 0.56263       | 0.09814    | 0.03325 | 18      | -0.49    | 518.53 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 2033     | 0.51600  | 0.00400 | 0.56263       | 0.09814    | 0.03325 | 18      | -0.48    | 518.53 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 2141     | 0.53500  | 0.01000 | 0.56263       | 0.09814    | 0.03325 | 18      | -0.28    | 518.43 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0033     | 0.56000  | 0.04000 | 0.56263       | 0.09814    | 0.03325 | 18      | -0.03    | 518.53 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 2058     | 0.57000  | 0.02000 | 0.56263       | 0.09814    | 0.03325 | 18      | 0.08     | 518.43 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0208     | 0.59150  | 0.07900 | 0.56263       | 0.09814    | 0.03325 | 18      | 0.29     | 518.52 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0918     | 0.60310  | 0.04560 | 0.56263       | 0.09814    | 0.03325 | 18      | 0.41     | 518.53 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 2113     | 0.60500  | 0.07000 | 0.56263       | 0.09814    | 0.03325 | 18      | 0.43     | 518.52 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0098     | 0.60950  | 0.00500 | 0.56263       | 0.09814    | 0.03325 | 18      | 0.48     | 518.53 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0186     | 0.61200  | 0.01200 | 0.56263       | 0.09814    | 0.03325 | 18      | 0.50     | 518.52 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0964     | 0.62250  | 0.01860 | 0.56263       | 0.09814    | 0.03325 | 18      | 0.61     | 518.43 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0010     | 0.64000  | 0.08000 | 0.56263       | 0.09814    | 0.03325 | 18      | 0.79     | 518.53 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0563     | 0.90430  | 0.09100 | 0.56263       | 0.09814    | 0.03325 | 18      | 3.48     | 518.31 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0042     | 0.98200  | 0.02600 | 0.56263       | 0.09814    | 0.03325 | 18      | 4.27     | 518.42 | 0    |
| 518          | Cadmium (mg / kg (ppm))        | 0870     | 0.00000  | 0.00000 | 0.56263       | 0.09814    | 0.03325 | 18      | -5.73    | 518.42 | 4    |
| 518          | Cadmium (mg / kg (ppm))        | 0870     | 0.00000  | 0.00000 | 0.56263       | 0.09814    | 0.03325 | 18      | -5.73    | 518.43 | 4    |
| 520          | Chromium (mg / kg (ppm))       | 0227     | 48.500   | 3.0000  | 60.545        | 5.2229     | 2.9710  | 20      | -2.31    | 520.31 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 0186     | 51.050   | 2.7000  | 60.545        | 5.2229     | 2.9710  | 20      | -1.82    | 520.52 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 0918     | 54.608   | 2.7350  | 60.545        | 5.2229     | 2.9710  | 20      | -1.14    | 520.53 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 0098     | 55.550   | 4.5000  | 60.545        | 5.2229     | 2.9710  | 20      | -0.96    | 520.43 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 0208     | 56.700   | 0.60000 | 60.545        | 5.2229     | 2.9710  | 20      | -0.74    | 520.41 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 0870     | 57.155   | 3.7900  | 60.545        | 5.2229     | 2.9710  | 20      | -0.65    | 520.42 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 0043     | 58.200   | 8.2000  | 60.545        | 5.2229     | 2.9710  | 20      | -0.45    | 520.43 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 0047     | 58.490   | 0.42000 | 60.545        | 5.2229     | 2.9710  | 20      | -0.39    | 520.52 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 0027     | 58.815   | 1.5850  | 60.545        | 5.2229     | 2.9710  | 20      | -0.33    | 520.43 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 2051     | 59.230   | 1.5200  | 60.545        | 5.2229     | 2.9710  | 20      | -0.25    | 520.53 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 0563     | 60.701   | 2.5352  | 60.545        | 5.2229     | 2.9710  | 20      | 0.03     | 520.31 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 2033     | 61.150   | 5.9000  | 60.545        | 5.2229     | 2.9710  | 20      | 0.12     | 520.43 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 2141     | 63.000   | 4.0000  | 60.545        | 5.2229     | 2.9710  | 20      | 0.47     | 520.43 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 2113     | 63.000   | 4.0000  | 60.545        | 5.2229     | 2.9710  | 20      | 0.47     | 520.52 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 0033     | 63.200   | 4.2000  | 60.545        | 5.2229     | 2.9710  | 20      | 0.51     | 520.53 | 0    |
| 520          | Chromium (mg / kg (ppm))       | 0964     | 64.334   | 0.76470 | 60.545        | 5.2229     | 2.9710  | 20      | 0.73     | 520.43 | 0    |

| Method Group | Analyte Group (Units)    | Lab Code | Lab Data |         | Method Values |            |         |         | AAFCO PT | Your   | Flag |
|--------------|--------------------------|----------|----------|---------|---------------|------------|---------|---------|----------|--------|------|
|              |                          |          | Value    | Range   | Rob Mean      | Horwitz SD | R-bar   | # Tests | Z Score  | Method |      |
| 520          | Chromium (mg / kg (ppm)) | 0870     | 66.260   | 0.90000 | 60.545        | 5.2229     | 2.9710  | 20      | 1.09     | 520.43 | 0    |
| 520          | Chromium (mg / kg (ppm)) | 0510     | 68.540   | 1.6800  | 60.545        | 5.2229     | 2.9710  | 20      | 1.53     | 520.43 | 0    |
| 520          | Chromium (mg / kg (ppm)) | 2058     | 69.755   | 2.1900  | 60.545        | 5.2229     | 2.9710  | 20      | 1.76     | 520.43 | 0    |
| 520          | Chromium (mg / kg (ppm)) | 0042     | 71.100   | 4.2000  | 60.545        | 5.2229     | 2.9710  | 20      | 2.02     | 520.42 | 0    |
| 520          | Chromium (mg / kg (ppm)) | 0010     | 61.300   | 14.800  | 60.545        | 5.2229     | 2.9710  | 20      | 0.14     | 520.53 | 1    |
| 526          | Lead (mg / kg (ppm))     | 0043     | 0.76300  | 0.02600 | 1.4009        | 0.21301    | 0.08328 | 17      | -2.99    | 526.43 | 0    |
| 526          | Lead (mg / kg (ppm))     | 0407     | 1.0091   | 0.02340 | 1.4009        | 0.21301    | 0.08328 | 17      | -1.84    | 526.41 | 0    |
| 526          | Lead (mg / kg (ppm))     | 0047     | 1.1600   | 0.02000 | 1.4009        | 0.21301    | 0.08328 | 17      | -1.13    | 526.52 | 0    |
| 526          | Lead (mg / kg (ppm))     | 0563     | 1.1638   | 0.04890 | 1.4009        | 0.21301    | 0.08328 | 17      | -1.11    | 526.31 | 0    |
| 526          | Lead (mg / kg (ppm))     | 0033     | 1.2850   | 0.03000 | 1.4009        | 0.21301    | 0.08328 | 17      | -0.54    | 526.53 | 0    |
| 526          | Lead (mg / kg (ppm))     | 2058     | 1.2850   | 0.09000 | 1.4009        | 0.21301    | 0.08328 | 17      | -0.54    | 526.53 | 0    |
| 526          | Lead (mg / kg (ppm))     | 2141     | 1.3400   | 0.06000 | 1.4009        | 0.21301    | 0.08328 | 17      | -0.29    | 526.43 | 0    |
| 526          | Lead (mg / kg (ppm))     | 2113     | 1.3500   | 0.10000 | 1.4009        | 0.21301    | 0.08328 | 17      | -0.24    | 526.52 | 0    |
| 526          | Lead (mg / kg (ppm))     | 0010     | 1.4000   | 0.00000 | 1.4009        | 0.21301    | 0.08328 | 17      | 0.00     | 526.53 | 0    |
| 526          | Lead (mg / kg (ppm))     | 0227     | 1.4700   | 0.22000 | 1.4009        | 0.21301    | 0.08328 | 17      | 0.32     | 526.53 | 0    |
| 526          | Lead (mg / kg (ppm))     | 0964     | 1.4711   | 0.12170 | 1.4009        | 0.21301    | 0.08328 | 17      | 0.33     | 526.43 | 0    |
| 526          | Lead (mg / kg (ppm))     | 0186     | 1.4950   | 0.13000 | 1.4009        | 0.21301    | 0.08328 | 17      | 0.44     | 526.52 | 0    |
| 526          | Lead (mg / kg (ppm))     | 2033     | 1.5750   | 0.03000 | 1.4009        | 0.21301    | 0.08328 | 17      | 0.82     | 526.53 | 0    |
| 526          | Lead (mg / kg (ppm))     | 0208     | 1.6200   | 0.24000 | 1.4009        | 0.21301    | 0.08328 | 17      | 1.03     | 526.52 | 0    |
| 526          | Lead (mg / kg (ppm))     | 0098     | 1.6250   | 0.13000 | 1.4009        | 0.21301    | 0.08328 | 17      | 1.05     | 526.53 | 0    |
| 526          | Lead (mg / kg (ppm))     | 0918     | 1.7645   | 0.11580 | 1.4009        | 0.21301    | 0.08328 | 17      | 1.71     | 526.53 | 0    |
| 526          | Lead (mg / kg (ppm))     | 2051     | 1.9750   | 0.03000 | 1.4009        | 0.21301    | 0.08328 | 17      | 2.70     | 526.53 | 0    |
| 526          | Lead (mg / kg (ppm))     | 0870     | 0.00000  | 0.00000 | 1.4009        | 0.21301    | 0.08328 | 17      | -6.58    | 526.42 | 4    |
| 526          | Lead (mg / kg (ppm))     | 0870     | 0.00000  | 0.00000 | 1.4009        | 0.21301    | 0.08328 | 17      | -6.58    | 526.43 | 4    |
| 529          | Mercury (µg / kg (ppb))  | 0918     | 0.06800  | 0.00000 | 57.484        | 12.646     | 4.4511  | 12      | -4.54    | 529.99 | 0    |
| 529          | Mercury (µg / kg (ppb))  | 0047     | 0.60000  | 1.0200  | 57.484        | 12.646     | 4.4511  | 12      | -4.50    | 529.99 | 0    |
| 529          | Mercury (µg / kg (ppb))  | 0208     | 53.700   | 1.2000  | 57.484        | 12.646     | 4.4511  | 12      | -0.30    | 529.99 | 0    |
| 529          | Mercury (µg / kg (ppb))  | 0010     | 55.000   | 4.0000  | 57.484        | 12.646     | 4.4511  | 12      | -0.20    | 529.99 | 0    |
| 529          | Mercury (µg / kg (ppb))  | 0098     | 55.000   | 10.000  | 57.484        | 12.646     | 4.4511  | 12      | -0.20    | 529.99 | 0    |
| 529          | Mercury (µg / kg (ppb))  | 0227     | 55.500   | 1.0000  | 57.484        | 12.646     | 4.4511  | 12      | -0.16    | 529.99 | 0    |
| 529          | Mercury (µg / kg (ppb))  | 0033     | 60.050   | 9.7000  | 57.484        | 12.646     | 4.4511  | 12      | 0.20     | 529.99 | 0    |
| 529          | Mercury (µg / kg (ppb))  | 0186     | 61.500   | 7.0000  | 57.484        | 12.646     | 4.4511  | 12      | 0.32     | 529.99 | 0    |
| 529          | Mercury (µg / kg (ppb))  | 0034     | 62.300   | 8.0000  | 57.484        | 12.646     | 4.4511  | 12      | 0.38     | 529.99 | 0    |
| 529          | Mercury (µg / kg (ppb))  | 2033     | 64.000   | 2.0000  | 57.484        | 12.646     | 4.4511  | 12      | 0.52     | 529.99 | 0    |
| 529          | Mercury (µg / kg (ppb))  | 0563     | 65.271   | 1.0033  | 57.484        | 12.646     | 4.4511  | 12      | 0.62     | 529.99 | 0    |
| 529          | Mercury (µg / kg (ppb))  | 2051     | 92.245   | 8.4900  | 57.484        | 12.646     | 4.4511  | 12      | 2.75     | 529.99 | 0    |
| 539          | Nickel (mg / kg (ppm))   | 0870     | 1.8790   | 0.03200 | 3.4409        | 0.45702    | 0.13822 | 17      | -3.42    | 539.42 | 0    |
| 539          | Nickel (mg / kg (ppm))   | 2113     | 2.7000   | 0.20000 | 3.4409        | 0.45702    | 0.13822 | 17      | -1.62    | 539.52 | 0    |
| 539          | Nickel (mg / kg (ppm))   | 0047     | 2.7100   | 0.10000 | 3.4409        | 0.45702    | 0.13822 | 17      | -1.60    | 539.52 | 0    |
| 539          | Nickel (mg / kg (ppm))   | 0918     | 2.9690   | 0.01770 | 3.4409        | 0.45702    | 0.13822 | 17      | -1.03    | 539.53 | 0    |
| 539          | Nickel (mg / kg (ppm))   | 0208     | 3.1300   | 0.34000 | 3.4409        | 0.45702    | 0.13822 | 17      | -0.68    | 539.41 | 0    |

| Method Group | Analyte Group (Units)  | Lab Code | Lab Data |         | Method Values |            |         |         | AAFCO PT | Your   | Flag |
|--------------|------------------------|----------|----------|---------|---------------|------------|---------|---------|----------|--------|------|
|              |                        |          | Value    | Range   | Rob Mean      | Horwitz SD | R-bar   | # Tests | Z Score  | Method |      |
| 539          | Nickel (mg / kg (ppm)) | 0870     | 3.1365   | 0.01100 | 3.4409        | 0.45702    | 0.13822 | 17      | -0.67    | 539.43 | 0    |
| 539          | Nickel (mg / kg (ppm)) | 0407     | 3.1981   | 0.03860 | 3.4409        | 0.45702    | 0.13822 | 17      | -0.53    | 539.41 | 0    |
| 539          | Nickel (mg / kg (ppm)) | 0186     | 3.2450   | 0.29000 | 3.4409        | 0.45702    | 0.13822 | 17      | -0.43    | 539.52 | 0    |
| 539          | Nickel (mg / kg (ppm)) | 0227     | 3.4000   | 0.20000 | 3.4409        | 0.45702    | 0.13822 | 17      | -0.09    | 539.33 | 0    |
| 539          | Nickel (mg / kg (ppm)) | 2141     | 3.4000   | 0.16000 | 3.4409        | 0.45702    | 0.13822 | 17      | -0.09    | 539.43 | 0    |
| 539          | Nickel (mg / kg (ppm)) | 0098     | 3.7200   | 0.10000 | 3.4409        | 0.45702    | 0.13822 | 17      | 0.61     | 539.53 | 0    |
| 539          | Nickel (mg / kg (ppm)) | 2033     | 3.7250   | 0.09000 | 3.4409        | 0.45702    | 0.13822 | 17      | 0.62     | 539.43 | 0    |
| 539          | Nickel (mg / kg (ppm)) | 0964     | 3.8492   | 0.09140 | 3.4409        | 0.45702    | 0.13822 | 17      | 0.89     | 539.43 | 0    |
| 539          | Nickel (mg / kg (ppm)) | 0027     | 4.0515   | 0.06900 | 3.4409        | 0.45702    | 0.13822 | 17      | 1.34     | 539.43 | 0    |
| 539          | Nickel (mg / kg (ppm)) | 2051     | 4.1250   | 0.03000 | 3.4409        | 0.45702    | 0.13822 | 17      | 1.50     | 539.53 | 0    |
| 539          | Nickel (mg / kg (ppm)) | 0043     | 4.2550   | 0.07000 | 3.4409        | 0.45702    | 0.13822 | 17      | 1.78     | 539.43 | 0    |
| 539          | Nickel (mg / kg (ppm)) | 0042     | 4.5450   | 0.51000 | 3.4409        | 0.45702    | 0.13822 | 17      | 2.42     | 539.42 | 0    |

Notes: Interpreting Z Scores: Red indicates a normally distributed Z value >3 or <-3 (requires action), Orange = Z between 2 and 3 or -2 and -3 (warning) and Green = Z < 2 and >-2 (OK at 95%). Flags indicate data usage: 0 = Used, 1 = Rejected for duplicates too far apart, 2 = Rejected as outlier, 8 = Analyst data exempt and 4 = zeros submitted as values. Robust statistics not used if < 6 labs reporting, in the case of 4 or 5 labs reporting Means and SD's may be reported based on Raw Data with obvious blunders removed (Mandel h and k exclusions apply; Grey). Flag 3 indicates not used in statistics.