**Section 742.APPENDIX B Tier 1 Illustrations and Tables**

**Section 742.TABLE D pH Specific Soil Remediation Objectives for Inorganics and Ionizing Organics for the Soil Component of the Groundwater Ingestion Route (Class II Groundwater)**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Chemical (totals) (mg/kg) | pH 4.5 to 4.74 | pH 4.75 to 5.24 | pH 5.25 to 5.74 | pH 5.75 to 6.24 | pH 6.25 to 6.64 | pH  6.65 to 6.89 | pH  6.9 to 7.24 | pH  7.25 to 7.74 | pH  7.75 to 8.24 | pH 8.25 to 8.74 | pH 8.75 to 9.0 |
| **Inorganics** |  |  |  |  |  |  |  |  |  |  |  |
| Antimony | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 | 20 |
| Arsenic | 100 | 100 | 100 | 110 | 110 | 120 | 120 | 120 | 120 | 130 | 130 |
| Barium | 260 | 490 | 850 | 1,200 | 1,500 | 1,600 | 1,700 | 1,800 | 2,100 | \_\_a | \_\_a |
| Beryllium | 140 | 260 | 420 | 820 | 2,800 | 7,900 | 17,000 | 130,000 | 1,000,000 | \_\_a | \_\_a |
| Cadmium | 10 | 17 | 27 | 37 | 52 | 75 | 110 | 590 | 4,300 | \_\_a | \_\_a |
| Chromium (+6) | No Data | No Data | No Data | No Data | No Data | No Data | No Data | No Data | No  Data | No Data | No Data |
| Copper | 330 | 580 | 2,100 | 11,000 | 59,000 | 130,000 | 200,000 | 330,000 | 330,000 | \_\_a | \_\_a |
| Cyanide | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 | 120 |
| Lead | 300 | 300 | 300 | 300 | 1,420 | 1,420 | 1,420 | 1,420 | 1,420 | 1,420 | 3,760 |
| Mercury | 0.05 | 0.06 | 0.14 | 0.75 | 4.4 | 10 | 16 | 32 | 40 | \_\_a | \_\_a |
| Nickel | 400 | 730 | 1,100 | 1,500 | 2,000 | 2,600 | 3,500 | 14,000 | 76,000 | \_\_a | \_\_a |
| Selenium | 24 | 17 | 12 | 8.8 | 6.3 | 5.2 | 4.5 | 3.3 | 2.4 | 1.8 | 1.3 |
| Thallium | 16 | 18 | 20 | 24 | 26 | 28 | 30 | 34 | 38 | 44 | 49 |
| Zinc | 2,000 | 3,600 | 5,200 | 7,200 | 10,000 | 12,000 | 15,000 | 32,000 | 110,000 | \_\_a | \_\_a |

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Chemical (totals)  (mg/kg) | pH 4.5 to 4.74 | pH 4.75 to 5.24 | pH 5.25 to 5.74 | pH 5.75 to 6.24 | pH 6.25 to 6.64 | pH 6.65 to 6.89 | pH  6.9 to 7.24 | pH 7.25 to 7.74 | pH 7.75 to 8.24 | pH 8.25 to 8.74 | pH 8.75 to 9.0 |
| **Organics** |  |  |  |  |  |  |  |  |  |  |  |
| Benzoic Acid | 440 | 420 | 410 | 400 | 400 | 400 | 400 | 400 | 400 | 400 | 400 |
| 2-Chlorophenol | 20 | 20 | 20 | 20 | 20 | 20 | 19 | 3.6 | 3.1 | 2.2 | 1.5 |
| 2,4-Dichlorophenol | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 1.0 | 0.86 | 0.69 | 0.56 | 0.48 |
| Dinoseb | 84 | 45 | 19 | 8.2 | 4.3 | 3.4 | 3.1 | 2.7 | 2.5 | 2.5 | 2.5 |
| Pentachlorophenol | 2.7 | 1.6 | 0.75 | 0.33 | 0.18 | 0.15 | 0.12 | 0.11 | 0.10 | 0.10 | 0.10 |
| 2,4,5-TP (Silvex) | 130 | 79 | 62 | 57 | 55 | 55 | 55 | 55 | 55 | 55 | 55 |
| 2,4,5-Trichlorophenol | 2,000 | 2,200 | 1,900 | 1,800 | 1,600 | 1,400 | 1,200 | 640 | 64 | 36 | 26 |
| 2,4,6-Trichlorophenol | 1.9 | 1.8 | 1.7 | 1.4 | 1.0 | 0.77 | 0.13 | 0.09 | 0.07 | 0.07 | 0.07 |

a No data available for this pH range.

(Source: Amended at 31 Ill. Reg. 4063, effective February 23, 2007)