**Table J.5**. Uranium $K_d$ values selected from literature for development of look-up table.

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 8.3 | 1.98 | | | | Hanford Groundwater | Trench 8 Loamy Sand | Kaplan and Serne (1995, Part. Sat. Column, 40%) |
| 8.3 | 0.49 | | | | Hanford Groundwater | Trench 8 Loamy Sand | Kaplan and Serne (1995, Part. Sat. Column, 40%) |
| 8.3 | 2.81 | | | | Hanford Groundwater | Trench 8 Loamy Sand | Kaplan and Serne (1995, Part. Sat. Column, 38%) |
| 8.3 | 0.62 | | | | Hanford Groundwater | Trench 8 Loamy Sand | Kaplan and Serne (1995, Part. Sat. Column, 22%) |
| 8.3 | 0.45 | | | | Hanford Groundwater | Trench 8 Loamy Sand | Kaplan and Serne (1995, Part. Sat. Column, 30%) |
| 8.3 | 0.54 | | | | Hanford Groundwater | Trench 8 Loamy Sand | Kaplan and Serne (1995, Part. Sat. Column, 23%) |
| 8.3 | 0.62 | | | | Hanford Groundwater | Trench 8 Loamy Sand | Kaplan and Serne (1995, Part. Sat. Column, 25%) |
| 8.3 | 0.40 | | | | Hanford Groundwater | Trench 8 Loamy Sand | Kaplan and Serne (1995, Part. Sat. Column, 17%) |
| 8.3 | 0.10 | | | | Hanford Groundwater | Trench 8 Loamy Sand | Kaplan and Serne (1995, Part. Sat. Column, 7%) |
| 8.3 | 0.08 | | | | Hanford Groundwater | Trench 8 Loamy Sand | Kaplan and Serne (1995, Part. Sat. Column, 7%) |
| | | | | | | | |
| 8.3 | 2.0 | | 5.2 | | Hanford Groundwater | Trench 8 Loamy Sand | Lindenmeir *et al.* (1995, Saturated Column 1) |
| 8.3 | 0.5 | | 5.2 | | Hanford Groundwater | Trench 8 Loamy Sand | Lindenmeir *et al.* (1995, Saturated Column 1) |
| 8.3 | 2.7 | | 5.2 | | Hanford Groundwater | Trench 8 Loamy Sand | Lindenmeir *et al.* (1995, Saturated Column 1) |
| 8.3 | 1.0 | | 5.2 | | Hanford Groundwater | Trench 8 Loamy Sand | Lindenmeir *et al.* (1995, Unsat. Column 1, 65%) |
| 8.3 | 0.5 | | 5.2 | | Hanford Groundwater | Trench 8 Loamy Sand | Lindenmeir *et al.* (1995, Unsat. UFA 1, 70%) |
| 8.3 | 0.2 | | 5.2 | | Hanford Groundwater | Trench 8 Loamy Sand | Lindenmeir *et al.* (1995, Unsat. UFA 2, 24%) |
| 8.3 | 1.1 | | 5.2 | | Hanford Groundwater | Trench 8 Loamy Sand | Lindenmeir *et al.* (1995, U nsat. Column 1, 63%) |
| 8.3 | 1.1 | | 5.2 | | Hanford Groundwater | Trench 8 Loamy Sand | Lindenmeir *et al.* (1995, Unsat. Column 2, 43%) |
| 8.3 | 0.6 | | 5.2 | | Hanford Groundwater | Trench 8 Loamy Sand | Lindenmeir *et al.* (1995, Unsat. UFA 1A, 29%) |
| 8.3 | 0.6 | | 5.2 | | Hanford Groundwater | Trench 8 Loamy Sand | Lindenmeir *et al.* (1995, Unsat. UFA 1C, 29%) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| | | | | | | | |
| 8.4 | 0.20 | | 5.3 | 6.3 | Hanford Groundwater | Trench 94 | Kaplan *et al.* (1998, Batch) |
| 8.4 | 0.15 | | 5.3 | 6.3 | Hanford Groundwater | Trench 94 | Kaplan *et al.* (1998, Batch) |
| 8.4 | 0.09 | | 5.3 | 6.3 | Hanford Groundwater | Trench 94 | Kaplan *et al.* (1998, Batch) |
| 8.4 | 0.15 | | 5.3 | 6.3 | Hanford Groundwater | Trench 94 | Kaplan *et al.* (1998, Batch) |
| 8.4 | 0.14 | | 5.3 | 6.3 | Hanford Groundwater | Trench 94 | Kaplan *et al.* (1998, Batch) |
| 7.92 | 1.99 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1998, Batch) |
| 8.05 | 1.92 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1998, Batch) |
| 7.99 | 1.91 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1998, Batch) |
| 7.99 | 2.10 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1998, Batch) |
| 7.98 | 2.25 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1998, Batch) |
| 7.97 | 2.44 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1998, Batch) |
| 8.48 | 1.07 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1998, Batch) |
| 8.26 | 1.46 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1998, Batch) |
| 8.44 | 1.37 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1998, Batch) |
| 9.12 | 2.12 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1998, Batch) |
| | | | | | | | |
| 8.46 | 0.90 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1996, 100% Unsaturated Batch) |
| 8.46 | 1.70 | | 5.3 | 6.3 | Hanford Groundwater | Trench 94 | Kaplan *et al.* (1996, 100% Unsaturated Batch) |
| 8.46 | 1.00 | | 6.0 | 6.3 | Hanford Groundwater | TSB-1 | Kaplan *et al.* (1996, 100% Unsaturated Batch) |
| 8.46 | 1.10 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1996, Batch) |
| 8.46 | 3.50 | | 5.3 | 6.3 | Hanford Groundwater | Trench 94 | Kaplan *et al.* (1996, Batch) |
| 8.46 | 2.10 | | 6.0 | 6.3 | Hanford Groundwater | TSB-1 | Kaplan *et al.* (1996, Batch) |
| 8.46 | 0.24 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1996) |
| 8.46 | 0.64 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1996) |
| 8.46 | 0.51 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1996) |
| 8.46 | 0.46 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1996) |
| 8.46 | 0.35 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1996) |
| 8.46 | 0.53 | | 6.4 | 14.8 | Hanford Groundwater | Trench AE-3 | Kaplan *et al.* (1996) |
| 8.46 | 0.23 | | 5.3 | 6.3 | Hanford Groundwater | Trench 94 | Kaplan *et al.* (1996) |
| 8.46 | 0.15 | | 5.3 | 6.3 | Hanford Groundwater | Trench 94 | Kaplan *et al.* (1996) |
| 8.46 | 0.1 | | 5.3 | 6.3 | Hanford Groundwater | Trench 94 | Kaplan *et al.* (1996) |
| 8.46 | 0.16 | | 5.3 | 6.3 | Hanford Groundwater | Trench 94 | Kaplan *et al.* (1996) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 8.46 | 0.12 | | 5.3 | 6.3 | Hanford Groundwater | Trench 94 | Kaplan *et al.* (1996) |
| | | | | | | | |
| | 2 | 8 | | | | Sand | Neiheisel [1983, as listed in Thibault *et al.* (1990)] |
| | 1 | 7 | | | | Sand | Neiheisel [1983, as listed in Thibault *et al.* (1990)] |
| | 3 | 15 | | | | Sand | Neiheisel [1983, as listed in Thibault *et al.* (1990)] |
| | 750 | 36 | | | | Clayey Sand | Neiheisel [1983, as listed in Thibault *et al.* (1990)] |
| | 770 | 21 | | | | Clayey Sand | Neiheisel [1983, as listed in Thibault *et al.* (1990)] |
| | 550 | 19 | | | | Clayey Sand | Neiheisel [1983, as listed in Thibault *et al.* (1990)] |
| | | | | | | | |
| 2.00 | 100 | | | | | Fine Sandstone and Silty Sand | Haji-Djafari *et al.* [1981, as listed in Thibault *et al.* (1990)] |
| 4.50 | 200 | | | | | Fine Sandstone and Silty Sand | Haji-Djafari *et al.* [1981, as listed in Thibault *et al.* (1990)] |
| 5.75 | 1,000 | | | | | Fine Sandstone and Silty Sand | Haji-Djafari *et al.* [1981, as listed in Thibault *et al.* (1990)] |
| 7.00 | 2,000 | | | | | Fine Sandstone and Silty Sand | Haji-Djafari *et al.* [1981, as listed in Thibault *et al.* (1990)] |
| | | | | | | | |
| 5.6 | 25,000 | | | | | Red-Brown Clayey | Seeley and Kelmers [1984, as listed in Thibault *et al.* (1990)] |
| 5.6 | 250 | | | | | Red-Brown Clayey | Seeley and Kelmers [1984, as listed in Thibault *et al.* (1990)] |
| | | | | | | | |
| 5.20 | 58.4 | | | | | | Thibault *et al.* (1990, values determined by coworkers) |
| 5.10 | 294.9 | | | | | | Thibault *et al.* (1990, values determined by coworkers) |
| 5.20 | 160 | | | | | | Thibault *et al.* (1990, values determined by coworkers) |
| 6.20 | 45.4 | | | | | | Thibault *et al.* (1990, values determined by coworkers) |
| | | | | | | | |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2$/g) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 7.00 | 450 | 36 | 28.0 | | | Silty Loam Clay | Thibault *et al.* (1990, values determined by coworkers) |
| 7.30 | 1.2 | 15 | 17.0 | | | Loam | Thibault *et al.* (1990, values determined by coworkers) |
| 4.90 | 0.03 | 2 | 5.8 | | | Medium Sand | Thibault *et al.* (1990, values determined by coworkers) |
| 5.50 | 2900 | 1 | 120.0 | | | Organic | Thibault *et al.* (1990, values determined by coworkers) |
| 7.40 | 1.9 | 10 | 9.1 | | | Fine Sandy Loam | Thibault *et al.* (1990, values determined by coworkers) |
| 7.40 | 2.4 | 11 | 8.7 | | | Fine Sandy Loam | Thibault *et al.* (1990, values determined by coworkers) |
| 6.60 | 590 | 10 | 10.8 | | | Fine Sandy Loam | Thibault *et al.* (1990, values determined by coworkers) |
| 6.50 | 4500 | 10 | 12.6 | | | Fine Sandy Loam | Thibault *et al.* (1990, values determined by coworkers) |
| 7.10 | 15 | 12 | 13.4 | | | Fine Sandy Loam | Thibault *et al.* (1990, values determined by coworkers) |
| | | | | | | | |
| 7.00 | 16 | | | | | Sand | Rancon [1973, as listed in Thibault *et al.* (1990)] |
| 7.00 | 33 | | | | | Organic Peat | Rancon [1973, as listed in Thibault *et al.* (1990)] |
| | | | | | | | |
| 6.50 | 4400 | | | | | Clay Fraction | Dahlman *et al.* [1976, as listed in Thibault *et al.* (1990)] |
| | | | | | | | |
| 2.80 | 200 | | | | | Abyssal Red Clay | Erickson (1980) |
| 7.10 | 790,000 | | | | | Abyssal Red Clay | Erickson (1980) |
| | | | | | | | |
| 8.3 | 1.70 | | 2.6 | | Hanford Groundwater | CGS-1 sand (coarse gravel sand) | Serne *et al.* (1993, Batch) |
| 8.3 | 2.30 | | 5.2 | | Hanford Groundwater | Trench 8 Loamy Sand (medium/coarse sand) | Serne *et al.* (1993, Batch) |
| 8.3 | 79.30 | | 6.0 | | Hanford Groundwater | TBS-1 Loamy Sand (Touchet Bed sand) | Serne *et al.* (1993, Batch) |
| | | | | | | | |
| 8.00 | 56.0 | | | | Hanford Groundwater, GR-1 | Umtanum Basalt | Salter *et al.* (1981) |
| 8.00 | 7.5 | | | | Hanford Groundwater, GR-1 | Umtanum Basalt | Salter *et al.* (1981) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2$/g) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 8.00 | 13.2 | | | | Hanford Groundwater, GR-1 | Umtanum Basalt | Salter *et al.* (1981) |
| 8.00 | 17.8 | | | | Hanford Groundwater, GR-1 | Umtanum Basalt | Salter *et al.* (1981) |
| 8.00 | 20.2 | | | | Hanford Groundwater, GR-1 | Umtanum Basalt | Salter *et al.* (1981) |
| 8.00 | 13.0 | | | | Hanford Groundwater, GR-1 | Flow E Basalt | Salter *et al.* (1981) |
| 8.00 | 2.7 | | | | Hanford Groundwater, GR-1 | Flow E Basalt | Salter *et al.* (1981) |
| 8.00 | 2.2 | | | | Hanford Groundwater, GR-1 | Flow E Basalt | Salter *et al.* (1981) |
| 8.00 | 3.2 | | | | Hanford Groundwater, GR-1 | Flow E Basalt | Salter *et al.* (1981) |
| 8.00 | 2.9 | | | | Hanford Groundwater, GR-1 | Flow E Basalt | Salter *et al.* (1981) |
| 8.00 | 16.0 | | | | Hanford Groundwater,GR-1 | Pomona Basalt | Salter *et al.* (1981) |
| 8.00 | 2.2 | | | | Hanford Groundwater,GR-1 | Pomona Basalt | Salter *et al.* (1981) |
| 8.00 | 3.5 | | | | Hanford Groundwater,GR-1 | Pomona Basalt | Salter *et al.* (1981) |
| 8.00 | 5.2 | | | | Hanford Groundwater,GR-1 | Pomona Basalt | Salter *et al.* (1981) |
| 8.00 | 5.8 | | | | Hanford Groundwater,GR-1 | Pomona Basalt | Salter *et al.* (1981) |
| 10.00 | 2.8 | | | | Hanford Groundwater,GR-2 | Umtanum Basalt | Salter *et al.* (1981) |
| 10.00 | 2.3 | | | | Hanford Groundwater,GR-2 | Umtanum Basalt | Salter *et al.* (1981) |
| 10.00 | 2.8 | | | | Hanford Groundwater,GR-2 | Umtanum Basalt | Salter *et al.* (1981) |
| 10.00 | 2.8 | | | | Hanford Groundwater,GR-2 | Umtanum Basalt | Salter *et al.* (1981) |
| 10.00 | 2.5 | | | | Hanford Groundwater,GR-2 | Umtanum Basalt | Salter *et al.* (1981) |
| 10.00 | 1.0 | | | | Hanford Groundwater,GR-2 | Flow E Basalt | Salter *et al.* (1981) |
| 10.00 | 0.5 | | | | Hanford Groundwater,GR-2 | Flow E Basalt | Salter *et al.* (1981) |
| 10.00 | 0.4 | | | | Hanford Groundwater,GR-2 | Flow E Basalt | Salter *et al.* (1981) |
| 10.00 | 0.8 | | | | Hanford Groundwater,GR-2 | Flow E Basalt | Salter *et al.* (1981) |
| 10.00 | 0.2 | | | | Hanford Groundwater,GR-2 | Flow E Basalt | Salter *et al.* (1981) |
| 10.00 | 0.9 | | | | Hanford Groundwater,GR-2 | Pomona Basalt | Salter *et al.* (1981) |
| 10.00 | 0.6 | | | | Hanford Groundwater,GR-2 | Pomona Basalt | Salter *et al.* (1981) |
| 10.00 | 0.8 | | | | Hanford Groundwater,GR-2 | Pomona Basalt | Salter *et al.* (1981) |
| 10.00 | 0.5 | | | | Hanford Groundwater,GR-2 | Pomona Basalt | Salter *et al.* (1981) |
| 10.00 | 0.4 | | | | Hanford Groundwater,GR-2 | Pomona Basalt | Salter *et al.* (1981) |
| | | | | | | | |
| 7.66 | 7.5 | | 1.83 | 17.7 | Hanford Groundwater,GR-1 | Umtanum Basalt | Ames *et al.* (1982) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 7.66 | 13 | | 1.83 | 17.7 | Hanford Groundwater,GR-1 | Umtanum Basalt | Ames *et al.* (1982) |
| 7.66 | 18 | | 1.83 | 17.7 | Hanford Groundwater,GR-1 | Umtanum Basalt | Ames *et al.* (1982) |
| 7.66 | 20 | | 1.83 | 17.7 | Hanford Groundwater,GR-1 | Umtanum Basalt | Ames *et al.* (1982) |
| 8.38 | 2.4 | | 1.83 | 17.7 | Hanford Groundwater,GR-2 | Umtanum Basalt | Ames *et al.* (1982) |
| 8.38 | 2.9 | | 1.83 | 17.7 | Hanford Groundwater,GR-2 | Umtanum Basalt | Ames *et al.* (1982) |
| 8.38 | 2.9 | | 1.83 | 17.7 | Hanford Groundwater,GR-2 | Umtanum Basalt | Ames *et al.* (1982) |
| 8.38 | 2.5 | | 1.83 | 17.7 | Hanford Groundwater,GR-2 | Umtanum Basalt | Ames *et al.* (1982) |
| 7.65 | 2.7 | | 1.5 | 10.3 | Hanford Groundwater,GR-1 | Flow E Basalt | Ames *et al.* (1982) |
| 7.65 | 2.2 | | 1.5 | 10.3 | Hanford Groundwater,GR-1 | Flow E Basalt | Ames *et al.* (1982) |
| 7.65 | 3.2 | | 1.5 | 10.3 | Hanford Groundwater,GR-1 | Flow E Basalt | Ames *et al.* (1982) |
| 7.65 | 2.9 | | 1.5 | 10.3 | Hanford Groundwater,GR-1 | Flow E Basalt | Ames *et al.* (1982) |
| 8.38 | 0.55 | | 1.5 | 10.3 | Hanford Groundwater,GR-2 | Flow E Basalt | Ames *et al.* (1982) |
| 8.38 | 0.38 | | 1.5 | 10.3 | Hanford Groundwater,GR-2 | Flow E Basalt | Ames *et al.* (1982) |
| 8.38 | 0.78 | | 1.5 | 10.3 | Hanford Groundwater,GR-2 | Flow E Basalt | Ames *et al.* (1982) |
| 8.38 | 0.19 | | 1.5 | 10.3 | Hanford Groundwater,GR-2 | Flow E Basalt | Ames *et al.* (1982) |
| 7.90 | 2.2 | | 4.84 | 31.2 | Hanford Groundwater,GR-1 | Pomona Basalt | Ames *et al.* (1982) |
| 7.90 | 3.5 | | 4.84 | 31.2 | Hanford Groundwater,GR-1 | Pomona Basalt | Ames *et al.* (1982) |
| 7.90 | 5.2 | | 4.84 | 31.2 | Hanford Groundwater,GR-1 | Pomona Basalt | Ames *et al.* (1982) |
| 7.90 | 5.8 | | 4.84 | 31.2 | Hanford Groundwater,GR-1 | Pomona Basalt | Ames *et al.* (1982) |
| 8.48 | 0.57 | | 4.84 | 31.2 | Hanford Groundwater,GR-2 | Pomona Basalt | Ames *et al.* (1982) |
| 8.48 | 0.83 | | 4.84 | 31.2 | Hanford Groundwater,GR-2 | Pomona Basalt | Ames *et al.* (1982) |
| 8.48 | 0.47 | | 4.84 | 31.2 | Hanford Groundwater,GR-2 | Pomona Basalt | Ames *et al.* (1982) |
| 8.48 | 0.42 | | 4.84 | 31.2 | Hanford Groundwater,GR-2 | Pomona Basalt | Ames *et al.* (1982) |
| 7.7 | 27 | | 71.66 | 646 | Hanford Groundwater,GR-1 | Smectite, secondary | Ames *et al.* (1982) |
| 7.7 | 39 | | 4.84 | 31.2 | Hanford Groundwater,GR-1 | Smectite, secondary | Ames *et al.* (1982) |
| 7.7 | 127 | | 4.84 | 31.2 | Hanford Groundwater,GR-1 | Smectite, secondary | Ames *et al.* (1982) |
| 7.7 | 76 | | 4.84 | 31.2 | Hanford Groundwater,GR-1 | Smectite, secondary | Ames *et al.* (1982) |
| 7.7 | 12 | | 4.84 | 31.2 | Hanford Groundwater,GR-2 | Smectite, secondary | Ames *et al.* (1982) |
| 7.7 | 42 | | 4.84 | 31.2 | Hanford Groundwater,GR-2 | Smectite, secondary | Ames *et al.* (1982) |
| 7.7 | 48 | | 4.84 | 31.2 | Hanford Groundwater,GR-2 | Smectite, secondary | Ames *et al.* (1982) |
| 7.7 | 22 | | 4.84 | 31.2 | Hanford Groundwater,GR-2 | Smectite, secondary | Ames *et al.* (1982) |
| | | | | | | | |
| 6.85 | 477,285 | | | | 0.01 NaCl | Amor Fe(III) Hydroxide | Ames *et al.* (1983c) |
| 6.80 | 818,221 | | | | 0.01 NaCl | Amor Fe(III) Hydroxide | Ames *et al.* (1983c) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2$/g) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 6.90 | 1,739,877 | | | | 0.01 NaCl | Amor Fe(III) Hydroxide | Ames *et al.* (1983c) |
| 6.90 | 1,690,522 | | | | 0.01 NaCl | Amor Fe(III) Hydroxide | Ames *et al.* (1983c) |
| 8.60 | 4,313 | | | | 0.01 $NaHCO_3$ | Amor Fe(III) Hydroxide | Ames *et al.* (1983c) |
| 8.65 | 14,098 | | | | 0.01 $NaHCO_3$ | Amor Fe(III) Hydroxide | Ames *et al.* (1983c) |
| 8.65 | 21,362 | | | | 0.01 $NaHCO_3$ | Amor Fe(III) Hydroxide | Ames *et al.* (1983c) |
| 8.80 | 26,269 | | | | 0.01 $NaHCO_3$ | Amor Fe(III) Hydroxide | Ames *et al.* (1983c) |
| | | | | | | | |
| 7.15 | 8.4 | | 15.3 | 1.59 | 0.01 NaCl | Biotite | Ames *et al.* (1983b) |
| 7.15 | 43.9 | | 15.3 | 1.59 | 0.01 NaCl | Biotite | Ames *et al.* (1983b) |
| 7.15 | 253.5 | | 15.3 | 1.59 | 0.01 NaCl | Biotite | Ames *et al.* (1983b) |
| 7.15 | 544.3 | | 15.3 | 1.59 | 0.01 NaCl | Biotite | Ames *et al.* (1983b) |
| 7.15 | 113.7 | | 0.95 | 1.88 | 0.01 NaCl | Muscovite | Ames *et al.* (1983b) |
| 7.15 | 251.0 | | 0.95 | 1.88 | 0.01 NaCl | Muscovite | Ames *et al.* (1983b) |
| 7.15 | 459.7 | | 0.95 | 1.88 | 0.01 NaCl | Muscovite | Ames *et al.* (1983b) |
| 7.15 | 68.2 | | 0.95 | 1.88 | 0.01 NaCl | Muscovite | Ames *et al.* (1983b) |
| 7.15 | 67.9 | | 1.17 | 1.22 | 0.01 NaCl | Phlogopite | Ames *et al.* (1983b) |
| 7.15 | 85.4 | | 1.17 | 1.22 | 0.01 NaCl | Phlogopite | Ames *et al.* (1983b) |
| 7.15 | 95.4 | | 1.17 | 1.22 | 0.01 NaCl | Phlogopite | Ames *et al.* (1983b) |
| 8.65 | 0.9 | | 15.3 | 1.59 | 0.01 $NaHCO_3$ | Biotite | Ames *et al.* (1983b) |
| 8.65 | 3.4 | | 15.3 | 1.59 | 0.01 $NaHCO_3$ | Biotite | Ames *et al.* (1983b) |
| 8.65 | 23.0 | | 15.3 | 1.59 | 0.01 $NaHCO_3$ | Biotite | Ames *et al.* (1983b) |
| 8.65 | 80.8 | | 15.3 | 1.59 | 0.01 $NaHCO_3$ | Biotite | Ames *et al.* (1983b) |
| 8.65 | 2.2 | | 0.95 | 1.88 | 0.01 $NaHCO_3$ | Muscovite | Ames *et al.* (1983b) |
| 8.65 | 26.9 | | 0.95 | 1.88 | 0.01 $NaHCO_3$ | Muscovite | Ames *et al.* (1983b) |
| 8.65 | 602.5 | | 0.95 | 1.88 | 0.01 $NaHCO_3$ | Muscovite | Ames *et al.* (1983b) |
| 8.65 | 3489.6 | | 0.95 | 1.88 | 0.01 $NaHCO_3$ | Muscovite | Ames *et al.* (1983b) |
| 8.65 | 0.6 | | 1.17 | 1.22 | 0.01 $NaHCO_3$ | Phlogopite | Ames *et al.* (1983b) |
| 8.65 | 1.1 | | 1.17 | 1.22 | 0.01 $NaHCO_3$ | Phlogopite | Ames *et al.* (1983b) |
| 8.65 | 0.6 | | 1.17 | 1.22 | 0.01 $NaHCO_3$ | Phlogopite | Ames *et al.* (1983b) |
| | | | | | | | |
| 7 | 544.5 | | 25 | 116.1 | 0.01 NaCl | Illite, only lowest U conc | Ames *et al.* (1983a) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 8.5 | 90.5 | | 25 | 116.1 | 0.01 $NaHCO_3$ | Illite, only lowest U conc | Ames *et al.* (1983a) |
| 7 | 657.8 | | 12.2 | 68.3 | 0.01 NaCl | Kaolinite, only lowest U conc | Ames *et al.* (1983a) |
| 8.5 | 400.8 | | 12.2 | 68.3 | 0.01 $NaHCO_3$ | Kaolinite, only lowest U conc | Ames *et al.* (1983a) |
| 7 | 542.0 | | 120 | 747 | 0.01 NaCl | Montmorillonite, only lowest U conc | Ames *et al.* (1983a) |
| 8.5 | 1.8 | | 120 | 747 | 0.01 $NaHCO_3$ | Montmorillonite, only lowest U conc | Ames *et al.* (1983a) |
| 7 | 299.9 | | 95 | 861 | 0.01 NaCl | Nontronite, only lowest U conc | Ames *et al.* (1983a) |
| 8.5 | 4.1 | | 95 | 861 | 0.01 $NaHCO_3$ | Nontronite, only lowest U conc | Ames *et al.* (1983a) |
| 7 | 138.0 | | 16.03 | 137.3 | 0.01 NaCl | Glauconite, only lowest U conc | Ames *et al.* (1983a) |
| 8.5 | 114.2 | | 16.03 | 137.3 | 0.01 $NaHCO_3$ | Glauconite, only lowest U conc | Ames *et al.* (1983a) |
| 7 | 66.5 | | 140.2 | 20 | 0.01 NaCl | Clinoptilolite, only lowest U conc | Ames *et al.* (1983a) |
| 8.5 | 0.6 | | 140.2 | 20 | 0.01 $NaHCO_3$ | Clinoptilolite, only lowest U conc | Ames *et al.* (1983a) |
| 7 | 225.7 | | 3.18 | 46.8 | 0.01 NaCl | Opal, only lowest U conc | Ames *et al.* (1983a) |
| 8.5 | 1.7 | | 3.18 | 46.8 | 0.01 $NaHCO_3$ | Opal, only lowest U conc | Ames *et al.* (1983a) |
| 7 | 300.5 | | 2.79 | 626.3 | 0.01 NaCl | Silica Gel,, only lowest U conc | Ames *et al.* (1983a) |
| 8.5 | 639.9 | | 2.79 | 626.3 | 0.01 $NaHCO_3$ | Silica Gel,, only lowest U conc | Ames *et al.* (1983a) |
| | | | | | | | |
| 7.3 | 4200.0 | | 4.36 | | | Spesutie (silt loam) | Erikson *et al.* (1993) |
| 6.2 | 136.0 | | 1.29 | | | Transonic (silt loam) | Erikson *et al.* (1993) |
| 8.0 | 44 | | 9.30 | | | Yuma (sandy loam) | Erikson *et al.* (1993) |
| 6.8 | 4360 | | 4.36 | | | Spesutie (silt loam) | Erikson *et al.* (1993) |
| 5.6 | 328 | | 1.29 | | | Transonic (silt loam) | Erikson *et al.* (1993) |
| 8.0 | 54 | | 9.30 | | | Yuma (sandy loam) | Erikson *et al.* (1993) |
| | | | | | | | |
| | 39 | | | | | River Sediment (Quartz, clay, calcite, organic matter) | Rancon (1973) as cited by Ames and Rai (1978) |
| | 33 | | | | | River Peat | Rancon (1973) as cited by Ames and Rai (1978) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| | 16 | | | | | River Sediment (Quartz, clay, calcite) | Rancon (1973) as cited by Ames and Rai (1978) |
| | 270 | | | | | Soil (Quartz and Clay, from Altered Schist) | Rancon (1973) as cited by Ames and Rai (1978) |
| | 0 | | | | | Quartz | Rancon (1973) as cited by Ames and Rai (1978) |
| | 7 | | | | | Calcite | Rancon (1973) as cited by Ames and Rai (1978) |
| | 139 | | | | | Illite | Rancon (1973) as cited by Ames and Rai (1978) |
| | | | | | | | |
| | 27 (0.8-332) | | | | Fresh Water | Gorleben Salt Dome, Sandy Sediment | Warnecke *et al.* (1984, 1986, 1994), Warnecke and Hild (1988) |
| | 1 (0.3-1.6) | | | | Fresh Water | Gorleben Salt Dome, Sandy Sediment | Warnecke *et al.* (1984, 1986, 1994), Warnecke and Hild (1988) |
| | 17 (8.5-100) | | | | Saline Water | Gorleben Salt Dome, Clayish Sediment | Warnecke *et al.* (1984, 1986, 1994), Warnecke and Hild (1988) |
| | 14-1,400 | | | | Saline Water | Gorleben Salt Dome, Clayish Sediment | Warnecke *et al.* (1984, 1986, 1994), Warnecke and Hild (1988) |
| | | | | | | | |
| | 4 | | | | Quaternary fresh water | Former Konrad Iron Ore Mine | Warnecke *et al.* (1986), Warnecke and Hild (1988) |
| | 6 | | | | Turonian fresh water | Former Konrad Iron Ore Mine | Warnecke *et al.* (1986), Warnecke and Hild (1988) |
| | 6 | | | | Cenomanian saline water | Former Konrad Iron Ore Mine | Warnecke *et al.* (1986), Warnecke and Hild (1988) |
| | 20 | | | | Albian (Hauterivain) saline water | Former Konrad Iron Ore Mine | Warnecke *et al.* (1986), Warnecke and Hild (1988) |
| | 1.4 | | | | Albian (Hils) saline water | Former Konrad Iron Ore Mine | Warnecke *et al.* (1986), Warnecke and Hild (1988) |
| | 2.6 | | | | Kimmeridgian saline water | Former Konrad Iron Ore Mine | Warnecke *et al.* (1986), Warnecke and Hild (1988) |
| | 3 | | | | Oxfordian saline water | Former Konrad Iron Ore Mine | Warnecke *et al.* (1986), Warnecke and Hild (1988) |
| | 3 | | | | Bajocian (Dogger) saline water | Former Konrad Iron Ore Mine | Warnecke *et al.* (1986), Warnecke and Hild (1988) |
| | | | | | | | |
| 3.83 | 310 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 3.90 | 235 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 3.94 | 741 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 3.96 | 211 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 4.03 | 694 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 4.13 | 720 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 4.28 | 898 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 4.33 | 630 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 4.36 | 247 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 4.53 | 264 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 4.58 | 903 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 4.61 | 324 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 4.71 | 522 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 4.81 | 1,216 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 4.95 | 1,185 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 4.84 | 3,381 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.00 | 2,561 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.10 | 2,635 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.11 | 3,807 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.19 | 4,293 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.52 | 4,483 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.15 | 4,574 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.24 | 5,745 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.16 | 7,423 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 5.28 | 3,214 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.52 | 5,564 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.44 | 6,687 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.54 | 6,185 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.58 | 6,615 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.85 | 7,124 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.45 | 8,146 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.56 | 8,506 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.74 | 9,332 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.50 | 10,462 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.69 | 10,681 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.54 | 11,770 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.66 | 13,616 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.81 | 14,675 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.86 | 14,417 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.75 | 20,628 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 6.01 | 24,082 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 6.20 | 22,471 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 5.95 | 26,354 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 6.35 | 26,078 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 6.40 | 25,601 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 6.35 | 27,671 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 6.46 | 30,529 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 6.13 | 31,477 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 6.26 | 33,305 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 6.80 | 37,129 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 6.86 | 37,657 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 6.81 | 32,312 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 7.10 | 29,390 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 7.85 | 33,583 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 7.67 | 26,518 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 8.40 | 30,523 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 8.51 | 19,632 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 9.45 | 23,177 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 9.80 | 17,763 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| 9.90 | 14,499 | | | | Synthetic Groundwater, function of pH | Kaolinite | Giblin (1980) |
| | | | | | | | |
| 3.8 | 2 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |
| 3.5 | 5 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |
| 3.7 | 8 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |
| 3.7 | 69 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |
| 4.0 | 116 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |
| 6.4 | 1,216 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |
| 6.5 | 1,824 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 6.6 | 2,679 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |
| 7.7 | 7,379 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |
| 8.0 | 2,506 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |
| 8.3 | 21,979 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |
| 8.6 | 3,999 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |
| 9.0 | 14,689 | | | | Synthetic Groundwater, function of pH | Quartz | Andersson *et al.* (1982) |
| | | | | | | | |
| 3.4 | 27 | | | | Synthetic Groundwater, function of pH | Biotite | Andersson *et al.* (1982) |
| 4.4 | 326 | | | | Synthetic Groundwater, function of pH | Biotite | Andersson *et al.* (1982) |
| 4.4 | 522 | | | | Synthetic Groundwater, function of pH | Biotite | Andersson *et al.* (1982) |
| 4.7 | 418 | | | | Synthetic Groundwater, function of pH | Biotite | Andersson *et al.* (1982) |
| 5.1 | 1,489 | | | | Synthetic Groundwater, function of pH | Biotite | Andersson *et al.* (1982) |
| 5.2 | 2,512 | | | | Synthetic Groundwater, function of pH | Biotite | Andersson *et al.* (1982) |
| 6.4 | 2,812 | | | | Synthetic Groundwater, function of pH | Biotite | Andersson *et al.* (1982) |
| 7.3 | 7,228 | | | | Synthetic Groundwater, function of pH | Biotite | Andersson *et al.* (1982) |
| 7.3 | 16,634 | | | | Synthetic Groundwater, function of pH | Biotite | Andersson *et al.* (1982) |
| 7.4 | 9,840 | | | | Synthetic Groundwater, function of pH | Biotite | Andersson *et al.* (1982) |
| 8.1 | 4,732 | | | | Synthetic Groundwater, function of pH | Biotite | Andersson *et al.* (1982) |
| 9.0 | 8,337 | | | | Synthetic Groundwater, function of pH | Biotite | Andersson *et al.* (1982) |
| | | | | | | | |
| 3.3 | 207 | | | | Synthetic Groundwater, function of pH | Apatite | Andersson *et al.* (1982) |
| 3.8 | 324 | | | | Synthetic Groundwater, function of pH | Apatite | Andersson *et al.* (1982) |
| 4.0 | 726 | | | | Synthetic Groundwater, function of pH | Apatite | Andersson *et al.* (1982) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2$/g) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 4.0 | 668 | | | | Synthetic Groundwater, function of pH | Apatite | Andersson *et al.* (1982) |
| 4.4 | 3,767 | | | | Synthetic Groundwater, function of pH | Apatite | Andersson *et al.* (1982) |
| 4.5 | 4,732 | | | | Synthetic Groundwater, function of pH | Apatite | Andersson *et al.* (1982) |
| 5.0 | 16,218 | | | | Synthetic Groundwater, function of pH | Apatite | Andersson *et al.* (1982) |
| 5.3 | 8,241 | | | | Synthetic Groundwater, function of pH | Apatite | Andersson *et al.* (1982) |
| 6.0 | 140,605 | | | | Synthetic Groundwater, function of pH | Apatite | Andersson *et al.* (1982) |
| 7.7 | 24,660 | | | | Synthetic Groundwater, function of pH | Apatite | Andersson *et al.* (1982) |
| | | | | | | | |
| 3.6 | 460 | | | | Synthetic Groundwater, function of pH | Attapulgite (Palygorskite) | Andersson *et al.* (1982) |
| 4.1 | 1,514 | | | | Synthetic Groundwater, function of pH | Attapulgite (Palygorskite) | Andersson *et al.* (1982) |
| 4.2 | 7,194 | | | | Synthetic Groundwater, function of pH | Attapulgite (Palygorskite) | Andersson *et al.* (1982) |
| 4.5 | 6,471 | | | | Synthetic Groundwater, function of pH | Attapulgite (Palygorskite) | Andersson *et al.* (1982) |
| 4.7 | 4,753 | | | | Synthetic Groundwater, function of pH | Attapulgite (Palygorskite) | Andersson *et al.* (1982) |
| 5.1 | 23,335 | | | | Synthetic Groundwater, function of pH | Attapulgite (Palygorskite) | Andersson *et al.* (1982) |
| 5.9 | 12,531 | | | | Synthetic Groundwater, function of pH | Attapulgite (Palygorskite) | Andersson *et al.* (1982) |
| 6.4 | 266,686 | | | | Synthetic Groundwater, function of pH | Attapulgite (Palygorskite) | Andersson *et al.* (1982) |
| 7.3 | 645,654 | | | | Synthetic Groundwater, function of pH | Attapulgite (Palygorskite) | Andersson *et al.* (1982) |
| 7.8 | 82,224 | | | | Synthetic Groundwater, function of pH | Attapulgite (Palygorskite) | Andersson *et al.* (1982) |
| 8.7 | 46,132 | | | | Synthetic Groundwater, function of pH | Attapulgite (Palygorskite) | Andersson *et al.* (1982) |
| | | | | | | | |
| 3.2 | 1,175 | | | | Synthetic Groundwater, function of pH | Montimorillonite | Andersson *et al.* (1982) |
| 4.4 | 12,503 | | | | Synthetic Groundwater, function of pH | Montimorillonite | Andersson *et al.* (1982) |
| 6.6 | 3,917 | | | | Synthetic Groundwater, function of pH | Montimorillonite | Andersson *et al.* (1982) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2$/g) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 7.0 | 10,139 | | | | Synthetic Groundwater, function of pH | Montimorillonite | Andersson *et al.* (1982) |
| 7.0 | 28,054 | | | | Synthetic Groundwater, function of pH | Montimorillonite | Andersson *et al.* (1982) |
| 7.3 | 10,715 | | | | Synthetic Groundwater, function of pH | Montimorillonite | Andersson *et al.* (1982) |
| 8.2 | 21,528 | | | | Synthetic Groundwater, function of pH | Montimorillonite | Andersson *et al.* (1982) |
| 8.4 | 20,370 | | | | Synthetic Groundwater, function of pH | Montimorillonite | Andersson *et al.* (1982) |
| 9.0 | 18,621 | | | | Synthetic Groundwater, function of pH | Montimorillonite | Andersson *et al.* (1982) |
| | | | | | | | |
| 5.1 | 7,391 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.0 | 1,177 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.1 | 2,180 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.4 | 3,680 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.3 | 4,437 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.5 | 7,265 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.5 | 7,108 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.8 | 23,603 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.8 | 22,948 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 4.7 | 176 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 4.8 | 176 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.0 | 283 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.0 | 297 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.4 | 708 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.7 | 1,961 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2$/g) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 5.6 | 2,367 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.9 | 4,283 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 5.9 | 4,936 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 6.0 | 7,936 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 6.1 | 8,586 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 6.2 | 17,631 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 6.3 | 19,553 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 6.4 | 30,963 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| 6.5 | 43,756 | | 45 | 99 | Ca Electrolyte, **$CO_2$ Free** | Kenoma Clay, <2um fraction | Zachara *et al.* (1992, Fig 6) |
| | | | | | | | |
| 5.1 | 508 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.2 | 554 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.2 | 676 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.4 | 874 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.4 | 1,136 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.6 | 1,136 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.7 | 2,143 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.8 | 2,363 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.9 | 9,829 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.9 | 11,966 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 6.0 | 33,266 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 6.1 | 37,596 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2$/g) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 4.8 | 377 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 4.8 | 399 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.1 | 620 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.0 | 637 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.5 | 1,476 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.5 | 1,603 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.8 | 3,091 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 6.1 | 6,047 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 6.1 | 5,823 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 6.3 | 13,713 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 6.4 | 13,341 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 4.9 | 918 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.1 | 1,168 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.1 | 1,251 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.6 | 2,719 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 5.7 | 2,928 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 6.7 | 14,848 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 6.8 | 13,036 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 7.0 | 13,827 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 7.0 | 18,042 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 7.0 | 19,150 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 7.1 | 21,771 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 7.1 | 18,097 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 7.4 | 26,008 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 7.4 | 19,488 | | 59 | 112 | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| 7.7 | 31,032 | | | | Ca Electrolyte, **$CO_2$ Free** | Ringold Clay Isolate, <2um Fraction | Zachara *et al.* (1992, Fig 7) |
| | | | | | | | |
| 6.28 | 3,400 | | | | **Reducing Conditions** | PCE Surface Core, 0-8 cm | Sheppard and Thibault (1988, In Situ) |
| 6.28 | 2,800 | | | | **Reducing Conditions** | PCE Surface Core, 9-16 cm | Sheppard and Thibault (1988, In Situ) |
| 6.28 | 3,000 | | | | **Reducing Conditions** | PCE Surface Core, 17-24 cm | Sheppard and Thibault (1988, In Situ) |
| 6.28 | 11,600 | | | | **Reducing Conditions** | PCE Surface Core, 25-32 cm | Sheppard and Thibault (1988, In Situ) |
| 6.28 | 18,600 | | | | **Reducing Conditions** | PCE Surface Core, 33-40 cm | Sheppard and Thibault (1988, In Situ) |
| 6.09 | 3,200 | | | | **Reducing Conditions** | PCE Deep Core, 9-16 cm | Sheppard and Thibault (1988, In Situ) |
| 6.09 | 8,900 | | | | **Reducing Conditions** | PCE Deep Core, 17-24 cm | Sheppard and Thibault (1988, In Situ) |
| 6.09 | 9,400 | | | | **Reducing Conditions** | PCE Deep Core, 25-32 cm | Sheppard and Thibault (1988, In Situ) |
| 6.09 | 12,500 | | | | **Reducing Conditions** | PCE Deep Core, 33-40 cm | Sheppard and Thibault (1988, In Situ) |
| 5.94 | 3,000 | | | | **Reducing Conditions** | SCE Surface Core, 0-5 cm | Sheppard and Thibault (1988, In Situ) |
| 6.82 | 8,800 | | | | **Reducing Conditions** | SCE Surface Core, 6-20 cm | Sheppard and Thibault (1988, In Situ) |
| 7.28 | 2,600 | | | | **Reducing Conditions** | SCE Surface Core, 21-25 cm | Sheppard and Thibault (1988, In Situ) |
| 7.28 | 1,700 | | | | **Reducing Conditions** | SCE Surface Core, 26-30 cm | Sheppard and Thibault (1988, In Situ) |
| 7.28 | 700 | | | | **Reducing Conditions** | SCE Surface Core, 31-40 cm | Sheppard and Thibault (1988, In Situ) |
| | 1,300 | | | | **Reducing Conditions** | PCE Surface Core, 0-40 cm | Sheppard and Thibault (1988, Batch) |
| | 2,100 | | | | **Reducing Conditions** | PCE Deep Core, 40-80 cm | Sheppard and Thibault (1988, Batch) |
| | 2,000 | | | | **Reducing Conditions** | SCE Surface Core, 1-10 cm | Sheppard and Thibault (1988, Batch) |
| | 2,900 | | | | **Reducing Conditions** | SCE Surface Core, 10-30 cm | Sheppard and Thibault (1988, Batch) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| | 870 | | | | **Reducing Conditions** | SCE Surface Core, 30-40 cm | Sheppard and Thibault (1988, Batch) |
| | | | | | | | |
| 5.7 | 46 | | 2.3 | | Site Borehole Groundwater | Clay (Glacial Till, Less Than 5 mm) | Bell and Bates (1988) |
| 5.7 | 46 | | 3.0 | | Site Borehole Groundwater | C1:2 (Brown, Slightly Silty, Less Than 5 mm) | Bell and Bates (1988) |
| 5.7 | 900 | | 2.7 | | Site Borehole Groundwater | C3 (Dark Brown Coarse Granular Deposit, Less Than 5 mm) | Bell and Bates (1988) |
| 5.7 | 2,200 | | 2.9 | | Site Borehole Groundwater | C6 (Brown Coarse Granular Deposit, Less Than 5 mm) | Bell and Bates (1988) |
| 5.7 | 560 | | 0.8 | | Site Borehole Groundwater | Sand (Light Brown Coarse Granular Deposit, Less Than 5 mm) | Bell and Bates (1988) |
| | | | | | | | |
| 4.16 | 85.0 | 0.5 | 1.11 | | | A12 | Serkiz and Johnson (1994) |
| 4.99 | 170.0 | 3.3 | 1.82 | | | A13 | Serkiz and Johnson (1994) |
| 3.42 | 5.3 | 3 | 3.74 | | | A13R | Serkiz and Johnson (1994) |
| 3.19 | 2.1 | 1.5 | 1.39 | | | A22 | Serkiz and Johnson (1994) |
| 3.01 | 1.7 | 4.5 | 1.4 | | | A23 | Serkiz and Johnson (1994) |
| 3.19 | 3.7 | 4.4 | 7.92 | | | A31 | Serkiz and Johnson (1994) |
| 3.5 | 1.4 | 3.1 | 1 | | | A32 | Serkiz and Johnson (1994) |
| 3.29 | 1.2 | 4.7 | 2.1 | | | A42 | Serkiz and Johnson (1994) |
| 5.42 | 2,200.0 | 2.5 | 0.68 | | | A52 | Serkiz and Johnson (1994) |
| 3.72 | 2.3 | 2 | 0.42 | | | A53 | Serkiz and Johnson (1994) |
| 3.24 | 2.7 | 2.8 | 4.71 | | | B13 | Serkiz and Johnson (1994) |
| 3.93 | 8.5 | 3.9 | 3.06 | | | B14 | Serkiz and Johnson (1994) |
| 3.86 | 10.1 | 4.9 | | | | B23 | Serkiz and Johnson (1994) |
| 4.02 | 5.2 | 2.5 | 3.8 | | | B23R | Serkiz and Johnson (1994) |
| 3.83 | 14.0 | 7.5 | 5.69 | | | B24 | Serkiz and Johnson (1994) |
| 4.62 | 390.0 | 6.2 | 2.5 | | | B32 | Serkiz and Johnson (1994) |
| 4.64 | 180.0 | 5.5 | 8.42 | | | B33 | Serkiz and Johnson (1994) |
| 4.67 | 190.0 | 12.6 | 21.4 | | | B42 | Serkiz and Johnson (1994) |
| 3.66 | 6.4 | 1.2 | 3.02 | | | B43 | Serkiz and Johnson (1994) |
| 4.09 | 39.0 | 8.2 | 15.1 | | | B51 | Serkiz and Johnson (1994) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2$/g) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 3.61 | 5.3 | | | | | B52 | Serkiz and Johnson (1994) |
| 4.69 | 530.0 | 3.3 | 2.39 | | | B52R | Serkiz and Johnson (1994) |
| 3.68 | 6.4 | | | | | C13 | Serkiz and Johnson (1994) |
| 3.75 | 23.0 | 6.4 | | | | C14 | Serkiz and Johnson (1994) |
| 3.96 | 30.0 | | 1.28 | | | C22 | Serkiz and Johnson (1994) |
| 4.17 | 980.0 | 6.4 | 6.12 | | | C23 | Serkiz and Johnson (1994) |
| 5.53 | 3,600.0 | 5.5 | 2.54 | | | C32 | Serkiz and Johnson (1994) |
| 4.64 | 6,300.0 | 6.1 | 8.54 | | | C33 | Serkiz and Johnson (1994) |
| 5.27 | 14,000.0 | 7.9 | 11.4 | | | C42 | Serkiz and Johnson (1994) |
| 4.51 | 13,000.0 | 3 | 5.04 | | | C43 | Serkiz and Johnson (1994) |
| 6.78 | 11,000.0 | 5.3 | 1.96 | | | D13 | Serkiz and Johnson (1994) |
| 4.14 | 13.0 | | | | | D13RA | Serkiz and Johnson (1994) |
| | 9.3 | 2 | 2.55 | | | D13RB | Serkiz and Johnson (1994) |
| 4 | 320.0 | 10.5 | 11.4 | | | E13 | Serkiz and Johnson (1994) |
| 4.04 | 310.0 | 4.5 | 8.5 | | | E14 | Serkiz and Johnson (1994) |
| 5.85 | 2,700.0 | 6.4 | 15.5 | | | E23 | Serkiz and Johnson (1994) |
| 4.32 | 980.0 | 3.9 | 13.3 | | | E23R | Serkiz and Johnson (1994) |
| 3.87 | 290.0 | 7.3 | 13.8 | | | E24 | Serkiz and Johnson (1994) |
| 4.27 | 1,500.0 | 6.5 | 11.5 | | | E33 | Serkiz and Johnson (1994) |
| 4.05 | 380.0 | 3.7 | 10.5 | | | E34 | Serkiz and Johnson (1994) |
| 5.27 | 16,000.0 | 31.8 | 20.6 | | | E41 | Serkiz and Johnson (1994) |
| 4.87 | 18,000.0 | 14.5 | 20.6 | | | E42 | Serkiz and Johnson (1994) |
| 4.3 | 7,500.0 | 15.5 | 16.1 | | | F12 | Serkiz and Johnson (1994) |
| 4.9 | 830.0 | | 8.51 | | | F13 | Serkiz and Johnson (1994) |
| 4.69 | 160.0 | 8.1 | 7.48 | | | F22 | Serkiz and Johnson (1994) |
| 6.48 | 16,000.0 | 13 | 11.6 | | | F23 | Serkiz and Johnson (1994) |
| 4.85 | 8,700.0 | 14.2 | 15.1 | | | F32 | Serkiz and Johnson (1994) |
| 4.77 | 2,900.0 | 18.3 | 13.6 | | | F33 | Serkiz and Johnson (1994) |
| 5.2 | 34,000.0 | 17.2 | 11.8 | | | F42 | Serkiz and Johnson (1994) |
| 4.12 | 330.0 | 14.2 | | | | F43 | Serkiz and Johnson (1994) |
| 5.91 | 5,500.0 | 42.2 | 19.9 | | | F52 | Serkiz and Johnson (1994) |
| 5.63 | 27,000.0 | 16.3 | 13.3 | | | F53 | Serkiz and Johnson (1994) |
| 4.16 | 139.0 | 0.5 | 1.11 | | | A12 | Serkiz and Johnson (1994) |
| 4.99 | 361.0 | 3.3 | 1.82 | | | A13 | Serkiz and Johnson (1994) |
| 3.42 | 9.46 | 3 | 3.74 | | | A13R | Serkiz and Johnson (1994) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2/g$) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 3.19 | 3.79 | 1.5 | 1.39 | | | A22 | Serkiz and Johnson (1994) |
| 3.01 | 1.55 | 4.5 | 1.4 | | | A23 | Serkiz and Johnson (1994) |
| 3.19 | 4.43 | 4.4 | 7.92 | | | A31 | Serkiz and Johnson (1994) |
| 3.5 | 1.38 | 3.1 | 1 | | | A32 | Serkiz and Johnson (1994) |
| 3.29 | 1.19 | 4.7 | 2.1 | | | A42 | Serkiz and Johnson (1994) |
| 5.42 | 160.0 | 2.5 | 0.68 | | | A52 | Serkiz and Johnson (1994) |
| 3.72 | 16.0 | 2 | 0.42 | | | A53 | Serkiz and Johnson (1994) |
| 3.24 | 2.0 | 2.8 | 4.71 | | | B13 | Serkiz and Johnson (1994) |
| 3.93 | 10.4 | 3.9 | 3.06 | | | B14 | Serkiz and Johnson (1994) |
| 3.86 | 10.7 | 4.9 | | | | B23 | Serkiz and Johnson (1994) |
| 4.02 | 4.0 | 2.5 | 3.8 | | | B23R | Serkiz and Johnson (1994) |
| 3.83 | 11.3 | 7.5 | 5.69 | | | B24 | Serkiz and Johnson (1994) |
| 4.62 | 332.0 | 6.2 | 2.5 | | | B32 | Serkiz and Johnson (1994) |
| 4.64 | 212.0 | 5.5 | 8.42 | | | B33 | Serkiz and Johnson (1994) |
| 4.67 | 180.0 | 12.6 | 21.4 | | | B42 | Serkiz and Johnson (1994) |
| 3.66 | 7.1 | 1.2 | 3.02 | | | B43 | Serkiz and Johnson (1994) |
| 4.09 | 20.8 | 8.2 | 15.1 | | | B51 | Serkiz and Johnson (1994) |
| 3.61 | 2.6 | | | | | B52 | Serkiz and Johnson (1994) |
| 4.69 | 180.0 | 3.3 | 2.39 | | | B52R | Serkiz and Johnson (1994) |
| 3.68 | 5.6 | | | | | C13 | Serkiz and Johnson (1994) |
| 3.75 | 28.3 | 6.4 | | | | C14 | Serkiz and Johnson (1994) |
| 3.96 | 27.4 | | 1.28 | | | C22 | Serkiz and Johnson (1994) |
| 4.17 | 823.0 | 6.4 | 6.12 | | | C23 | Serkiz and Johnson (1994) |
| 5.53 | 540.0 | 5.5 | 2.54 | | | C32 | Serkiz and Johnson (1994) |
| 4.64 | 690.0 | 6.1 | 8.54 | | | C33 | Serkiz and Johnson (1994) |
| 5.27 | 1,400.0 | 7.9 | 11.4 | | | C42 | Serkiz and Johnson (1994) |
| 4.51 | 460.0 | 3 | 5.04 | | | C43 | Serkiz and Johnson (1994) |
| 6.78 | 690.0 | 5.3 | 1.96 | | | D13 | Serkiz and Johnson (1994) |
| 4.14 | 26.6 | | | | | D13RA | Serkiz and Johnson (1994) |
| | 22.6 | 2 | 2.55 | | | D13RB | Serkiz and Johnson (1994) |
| 4 | 650.0 | 10.5 | 11.4 | | | E13 | Serkiz and Johnson (1994) |
| 4.04 | 190.0 | 4.5 | 8.5 | | | E14 | Serkiz and Johnson (1994) |
| 4.32 | 310.0 | 3.9 | 13.3 | | | E23R | Serkiz and Johnson (1994) |
| 3.87 | 360.0 | 7.3 | 13.8 | | | E24 | Serkiz and Johnson (1994) |
| 4.27 | 470.0 | 6.5 | 11.5 | | | E33 | Serkiz and Johnson (1994) |

| pH | U Kd (ml/g) | Clay Cont. (wt.%) | CEC (meq/100g) | Surface Area ($m^2$/g) | Solution | Soil Identification | Reference / Comments |
|---|---|---|---|---|---|---|---|
| 4.05 | 270.0 | 3.7 | 10.5 | | | E34 | Serkiz and Johnson (1994) |
| 5.27 | 870.0 | 31.8 | 20.6 | | | E41 | Serkiz and Johnson (1994) |
| 4.87 | 630.0 | 14.5 | 20.6 | | | E42 | Serkiz and Johnson (1994) |
| 4.3 | 690.0 | 15.5 | 16.1 | | | F12 | Serkiz and Johnson (1994) |
| 4.9 | 2,200.0 | | 8.51 | | | F13 | Serkiz and Johnson (1994) |
| 4.69 | 1,200.0 | 8.1 | 7.48 | | | F22 | Serkiz and Johnson (1994) |
| 6.48 | 950.0 | 13 | 11.6 | | | F23 | Serkiz and Johnson (1994) |
| 4.85 | 660.0 | 14.2 | 15.1 | | | F32 | Serkiz and Johnson (1994) |
| 4.77 | 220.0 | 18.3 | 13.6 | | | F33 | Serkiz and Johnson (1994) |
| 5.2 | 910.0 | 17.2 | 11.8 | | | F42 | Serkiz and Johnson (1994) |
| 4.12 | 700.0 | 14.2 | | | | F43 | Serkiz and Johnson (1994) |
| 5.91 | 600.0 | 42.2 | 19.9 | | | F52 | Serkiz and Johnson (1994) |
| 5.63 | 960.0 | 16.3 | 13.3 | | | F53 | Serkiz and Johnson (1994) |

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