

Table 1

Radiocarbon ages and tephra information, Carp Lake

| Core         | Depth <sup>a</sup><br>(m) | Uncalibrated<br>age (yr B.P.) | <sup>14</sup> C<br>50 | Calibrated<br><sup>14</sup> C <sup>b</sup> (ka) | Lab No.=<br>Tephra | Comments   |
|--------------|---------------------------|-------------------------------|-----------------------|---|--------------------|--|
| Core 85      | 3.10±3.20                 | 5,820                         | 50                    | 6.67  | QL-1640            |  |
|              | 3.70±3.77                 | 8,760                         | 40                    | 9.75  | WIS-1460           | Base of Lithologic Unit 2  |
|              | 3.82±3.92                 | 9,470                         | 100                   | 10.47   | WIS-1468           | Top of Lithologic Unit 3   |
|              | 4.46±4.56                 | 9,730                         | 400                   | 10.96   | QL-1641            | Correlated by depth  |
|              | 5.61±5.71                 | 16,050                        | 400                   | 18.93   | QL-1642            | Correlated by depth  |
|              | 6.10±6.20                 | 18,190                        | 100                   | 21.73   | QL-1603            | Correlated by depth <sup>c</sup>   |
|              | 6.76±6.86                 | 21,100                        | 400                   | 24.71   | QL-1643            | Correlated by depth  |
|              | 7.30±7.40                 | 21,040                        | 400                   | 24.65   | QL-1644            | Correlated by depth <sup>c</sup>   |
|              | 8.30±8.40                 | 26,200                        | 200                   | 29.59   | QL-1646            | Correlated by depth  |
|              | 9.10±9.20                 | 32,700                        | 450                   | 35.00   | QL-1603            | Correlated by depth <sup>c</sup>   |
| Core 90      | 2.15±2.16                 | 3,450                         | 450                   | 3.69  | Carp Ash-1         | Mt. St. Helens Ye (Mullineaux, 1986)   |
|              | 2.29±2.31                 | 3,450                         | 450                   | 3.69  | Carp Ash-2         | Mt. St. Helens Ye (Mullineaux, 1986)   |
|              | 3.64±3.68                 | 6,730                         | 40                    | 7.54  | Carp Ash-3         | Mazama ash bed (Hallet et al., 1997)   |
|              | 6.15±6.25                 | 19,790                        | 190                   | 23.45   | Beta-57036         |  |
|              | 6.50±6.52                 |                               |                       |   | Carp Ash-4         | Unknown eruption   |
|              | 9.25±9.35                 | 32,760                        | 420                   | 35.00   | Beta-57037         |  |
|              | 9.51±9.85                 | 35,000±50,000                 |                       |   | Carp Ash-5         | Mt. St. Helens layer C (Mullineaux, 1986; Berger, 1991) <sup>c</sup>   |
|              | 11.50±11.60               | 33,720                        | 830                   | 36.00   | Beta-57038         |  |
|              | 12.71±12.75               |                               |                       |   | Carp Ash-6         | Unidenti@ed, no glass  |
|              | 13.95±14.05               | 40,290                        | 2,200                 | 42.00   | Beta-57039         | Rejected as too young <sup>c</sup>   |
|              | 16.20±16.40               | 28,110                        | 990                   |   | Beta-57941         | Rejected as too young <sup>c</sup>   |
|              | 17.17±17.19               |                               |                       |   | Carp Ash-7         | Unidenti@ed, no glass  |
|              | 18.57±18.64               |                               |                       |   | Carp Ash-8         | Mt. St. Helens, like layer C   |
|              | 19.06±19.07               |                               |                       |   | Carp Ash-9         | Mt. St. Helens, like layer C   |
|              | 19.11±19.50; 19.73±19.80  | ca. 100,000                   |                       |   | Carp Ash-10        | D unnamed tephra layer in Palouse Fm, Washington (Busacca et al., 1992)  |
| 19.99±20.22  | > 44,000                  |                               |                       | Beta 57041                                      |                    |  |
| 20.18±20.185 |                           |                               |                       | Carp Ash-11                                     | Unknown eruption   |  |
| Core 93      | 19.91±19.915              |                               |                       |   | Carp Ash-12        | Unidenti@ed, no glass  |
|              | 20.065±20.07              |                               |                       |   | Carp Ash-13        | Similar to Carp Ash-11   |
|              | 20.99±20.995              |                               |                       | < 218 10  | Carp Ash-14        | D tephra layer E at Pringle Falls, Oregon (Herrero-Bervera et al., 1994) <sup>c</sup>  |
|              | 22.18±22.20               |                               |                       | 174 41; or < 190                                | Carp Ash-15        | D andesitic tephra layer at Tulelake, California (Herrero-Bervera et al., 1994); layer KK at Summer Lake, Oregon (Negrini et al., 1994) <sup>c</sup> |

See Table 2 for electron microprobe data used to infer tephra layers.

<sup>a</sup> Depths in Core 85 and Core 93 have been adjusted to match correlative depths in Core 90; 0.65 cm was added to depths of Core 85 to provide equal depths in Core 90; Core 93 was correlated by the stratigraphic positions of Ash-10, -11, and -13.<sup>b</sup> Calibration is based on Bard et al. (1990), Mazaud et al. (1991) and Stuiver and Reimer (1993).<sup>c</sup> Not used in age models (see Fig. 2).Whitlock, C., Sarna-Wojcicki, A.M., Bartlein, P.J., and Nickmann, R.J. (2000). Environmental history and tepthrostratigraphy at Carp Lake, southwestern Columbia Basin, Washington, USA. *Palaeogeography, Palaeoclimatology, Palaeoecology*, 155: 7-29.