

**APPENDIX F:**

**TEPHRA DATA**

**SAMPLE: JA080402A T491-3 6.25 Ma Roblar Tuff (Plate 2)**

~100' E of N-S paved private (?) road, ~600' N of int. w/ Roblar Rd., 1 mi. W of int. w/ Stony Pt. Rd., about 1/4 mi. SE of Roblar, on Cotati 7.5' Quad. Coarse pumice lapilli and ash tuff with abundant clastic materials, including well-rounded pebbles; lower part coarse, grades up to fine-grained, hard tuff at top. Described by J. Allen. Good match to the Roblar Tuff. Given the grading, tuff is more likely to be water-deposited, rather than ash flow.

**SAMPLE: JA080402B T491-4 6.25 Ma Roblar Tuff (Plate 2)**

~100' E of N-S paved private (?) road, ~600' N of int. w/ Roblar Rd., 1 mi. W of int. w/ Stony Pt. Rd., about 1/4 mi. SE of Roblar, on Cotati 7.5' Quad (SE of Stony Point Rock Quarry, north of Roblar Road). Same location. as sample above. Finer-grained, upper part of tuff, overlying JA080402A. Good match to the Roblar Tuff, but with somewhat greater scatter, probably due to hydration, leaching, and incipient alteration of glass, or presence of shards from other tephra units. The latter interpretation seems less likely, because the scatter is towards lower values of FeO and CaO, consistent with hydration and leaching.

**SAMPLE: JA2002-A T490-3 4.64-4.65 Ma Healdsburg Tuff (Plate 2)**

Tuff exposed in S. bank of South fork of Mantanzas Creek, ~1/4 mi. S. of Sonoma Mountain Rd., and ~1/4 mi. SE. of BM 872, south edge of Bennett Valley, in sediments mapped as Petaluma Fm. This tephra layer is a good match to the tuff of Napa (Healdsburg tuff), dated 4.64-4.65 Ma. Presence of this tuff suggests that the sediments here are equivalent in part to the Silver Creek Gravels of Wills (1995), Sycamore Formation of Issacson (1990), Huichica Formation of Weaver (1949), and the Los Medanos gravels of Weaver (1949) overlying the Lawlor Tuff S. of Suisun Bay, N. of Mount Diablo.