Appendix C  Simulated Steady-State Temperature Fields for All Parkfield Simulations

The numbers referencing the Parkfield simulations in the titles on the following plots correspond to the numbers in Tables A2 and A3, under “Number in Appendix.”

The steady-state simulated temperature fields for each simulation are not in color in the electronic version of this thesis. Each temperature contour plot has 50 contours, with the warmest temperatures at the base of each plot and the coldest temperatures at the top of each plot. The topographic surface is outlined by the uppermost heavy line in each plot.

In the color version of this appendix, two green, single lines near the top of each plot that cut across the temperature contours denote the depths of 150 and 300 m beneath land surface. These depths correspond to the upper and lower bounds of the temperature-depth profile used to compute simulated surface heat flow, and may be slightly visible in the black and white version of this appendix. A color version of this appendix may be available from the author upon request.
Steady-State Temperature Field; Parkfield Simulation 1

Steady-State Temperature Field; Parkfield Simulation 2
Steady-State Temperature Field; Parkfield Simulation 25

Steady-State Temperature Field; Parkfield Simulation 26
Steady-State Temperature Field;
Parkfield Simulation 27

Distance Along Topographic Profile (km)

Elevation Above Sea Level (km)

Steady-State Temperature Field; Parkfield Impermeable Basement

Sediment k = 10^{-17} m^2, GVS k = high sensitivity
Steady-State Temperature Field; Parkfield Simulation 30

Steady-State Temperature Field; Parkfield Simulation 31
Steady-State Temperature Field; Parkfield Impermeable Basement, Conduit
Sediment $k = 10^{-17}$ m$^2$, Damage Zone $k = 10^{-5}$ Country Rock
Steady-State Temperature Field; Parkfield Simulation 34

Steady-State Temperature Field; Parkfield Simulation 35
Steady-State Temperature Field; Parkfield Simulation 36

Distance Along Topographic Profile (km)
Elevation Above Sea Level (km)

Steady-State Temperature Field; Parkfield Impermeable Basement, Barrier
Sediment k = 10^{-17} m^2, Damage Zone k = 10^{-20} m^2
Steady-State Temperature Field; Parkfield Simulation 37

Steady-State Temperature Field; Parkfield Simulation 38
Steady-State Temperature Field;
Parkfield Simulation 50

Steady-State Temperature Field;
Parkfield Simulation 51
Steady-State Temperature Field;
Parkfield Simulation 55

Distance Along Topographic Profile (km)
Elevation Above Sea Level (km)

Sediment k = 10^{-17} m^2
Steady-State Temperature Field; Parkfield Simulation 58

Steady-State Temperature Field; Parkfield Simulation 59
Steady-State Temperature Field;
Parkfield Simulation 60

Steady-State Temperature Field;
Parkfield Simulation 61
Steady-State Temperature Field; Parkfield Simulation 62

Steady-State Temperature Field; Parkfield Simulation 63

Distance Along Topographic Profile (km)
Elevation Above Sea Level (km)
Steady-State Temperature Field; Parkfield M&I High, Barrier
Sediment $k = 10^{-15}$ m$^2$, Damage Zone $k = 10^{-20}$ m$^2$
Steady-State Temperature Field;
Parkfield Simulation 64

Distance Along Topographic Profile (km)

Elevation Above Sea Level (km)

Steady-State Temperature Field; Parkfield M&I High, Barrier
Sediment k = 10^{-17} m^2, Damage Zone k = 10^{-20} m^2
Steady-State Temperature Field; Parkfield Simulation 65

Steady-State Temperature Field; Parkfield Simulation 66
Steady-State Temperature Field; Parkfield Simulation 71

Steady-State Temperature Field; Parkfield Simulation 72
Steady-State Temperature Field; Parkfield Simulation 81

Steady-State Temperature Field; Parkfield Simulation 82
Steady-State Temperature Field;
Parkfield Simulation 83

Steady-State Temperature Field;
Parkfield Simulation 84
Steady-State Temperature Field; Parkfield Simulation 85

Steady-State Temperature Field; Parkfield Simulation 86
Steady-State Temperature Field; Parkfield Simulation 87

Steady-State Temperature Field; Parkfield Simulation 88

Sediment $k_h = 10^{-15}$ m$^2$, $k_v = 5 \times 10^{-16}$ m$^2$
Steady-State Temperature Field;
Parkfield Simulation 95

Steady-State Temperature Field;
Parkfield Simulation 96
Steady-State Temperature Field;
Parkfield Simulation 97

Steady-State Temperature Field;
Parkfield Simulation 98
Steady-State Temperature Field;
Parkfield Simulation 101

Distance Along Topographic Profile (km)

Elevation Above Sea Level

Sediment $k_h = 10^{-17}$ m$^2$, $k_v = 10^{-18}$ m$^2$
Steady-State Temperature Field;
Parkfield Simulation 102

Steady-State Temperature Field;
Parkfield Simulation 103