Similarly as with the steel slinky I used only three quarters of the slinky (30/40 turns) as the spring (~ 39gm). However, the hangar and added pointer were of negligible mass. (taped thread and 41mm by 0.5D bus wire).   The B fit result (effective added mass of spring) is ~ 25gm or ~ 64 % of the spring's mass.   For the steel spring the corresponding value is 71%.

Note the rather disturbing greater discrepancy between the directly measured K (0.35N/m) and that derived from the oscillator fit. (0.5N/m)

bc