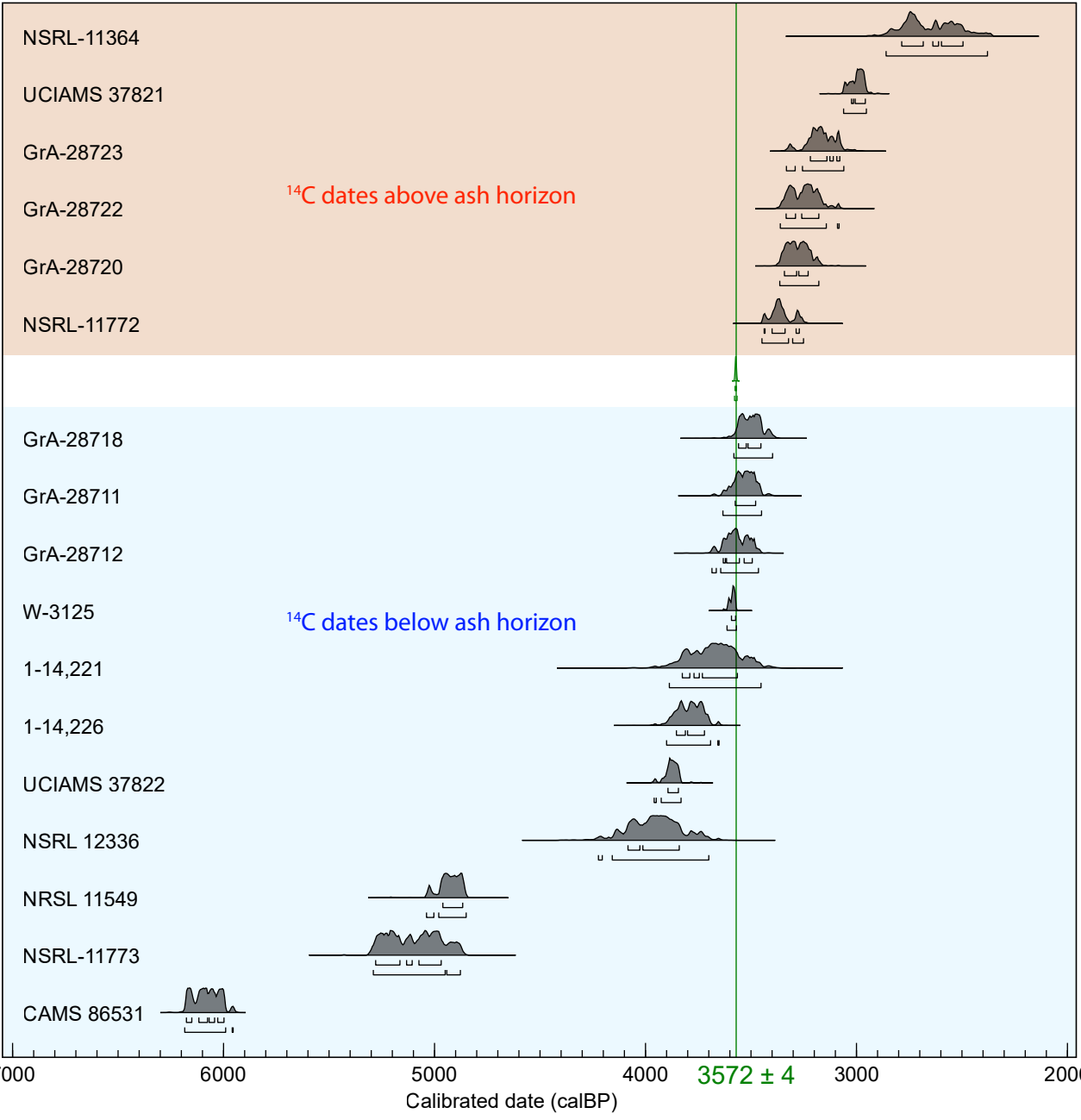


¹⁴C lab sample ID



Stratigraphy, location (reference), all data in Suppl. Table S1

| |
|----------------------------------------------------------------------|
| 16 cm above tephra, Arolik Lake (Kaufman et al. 2003) |
| 15 cm above tephra, Lone Spruce Pond (Kaufman et al. 2012) |
| 10 - 15 mm above tephra, Seward Peninsula (Blackford et al. 2014) |
| 5 - 10 mm above tephra, Seward Peninsula (Blackford et al. 2014) |
| 0 - 5 mm above tephra, Seward Peninsula (Blackford et al. 2014) |
| 8 cm above tephra, Waskey Lake (Levy et al. 2004) |
| NGRIP age of Aniakchak CFE II |
| 0 - 5 mm below tephra, Seward Peninsula (Blackford et al. 2014) |
| 10 - 15 mm below tephra, Seward Peninsula (Blackford et al. 2014) |
| 5 - 10 mm below tephra, Seward Peninsula (Blackford et al. 2014) |
| Base of ashflow tuff, Waterfall Creek (Miller and Smith 1987) |
| In ashflow tuff, Port Heiden Quarry (Miller and Smith 1987) |
| In pumice at base of tuff, King Salmon River (Miller and Smith 1987) |
| 10 cm below tephra, Lone Spruce Pond (Kaufman et al 2012) |
| 1 cm below tephra, Sunday Pond (Kaufman et al 2012) |
| 22 cm below tephra, Nimgun Lake (Kaufman et al 2012) |
| 48 cm below tephra, Waskey Lake (Levy et al 2004) |
| 57 cm below tephra, Arolik Lake (Kaufman et al 2003) |

Supplementary Figure 1: Calibrated radiocarbon ages from other studies to constrain the age of the Aniakchak CFE II eruption. Red ages: above ash layer, blue ages: below ash layer, green age and line: Aniakchak age from GRIP ice core. All data compiled originally by Davies et al. (2016). All data in Supplementary Table S1.