Appendix 2. Plots of mineral contents in soil samples from the upper and lower mineral soil horizons at sites along the north-south transect of Alaska

Figures in appendix 2 depict the content of a mineral or mineral class in soil samples from the upper- and lower-mineral soil horizon for sites along a north-south transect of Alaska. Samples from an OA, A, or AB horizon are considered the upper-mineral horizon; samples from a B, B1, or B2 horizon are considered the lower-mineral horizon. In addition to the mineral contents, shown for reference in each figure are, from top to bottom, a transect elevation profile that shows regions of known mineral occurrences within 5 kilometers of the transect (U.S. Geological Survey, 2016), as well as landmarks and cities; geographic region designations, and the composite terranes crossed by the transect and their inferred tectonic affinity and component terranes (from Plafker and Berg, 1994; Silberling and others, 1994; Fuis and others, 2008). Specific minerals identified within a group are given in parentheses in the figure heading. Terrane abbreviations are: ACT, Arctic composite terrane; AG, Angayucham terrane; RB, Ruby terrane; LG, Livengood terrane; MN, Manley terrane; WK, Wickersham terrane (also includes the Minook terrane); YTT, Yukon-Tanana terrane; WCT; Wangellia composite terrane; SAM, Southern Alaska margin terrane.

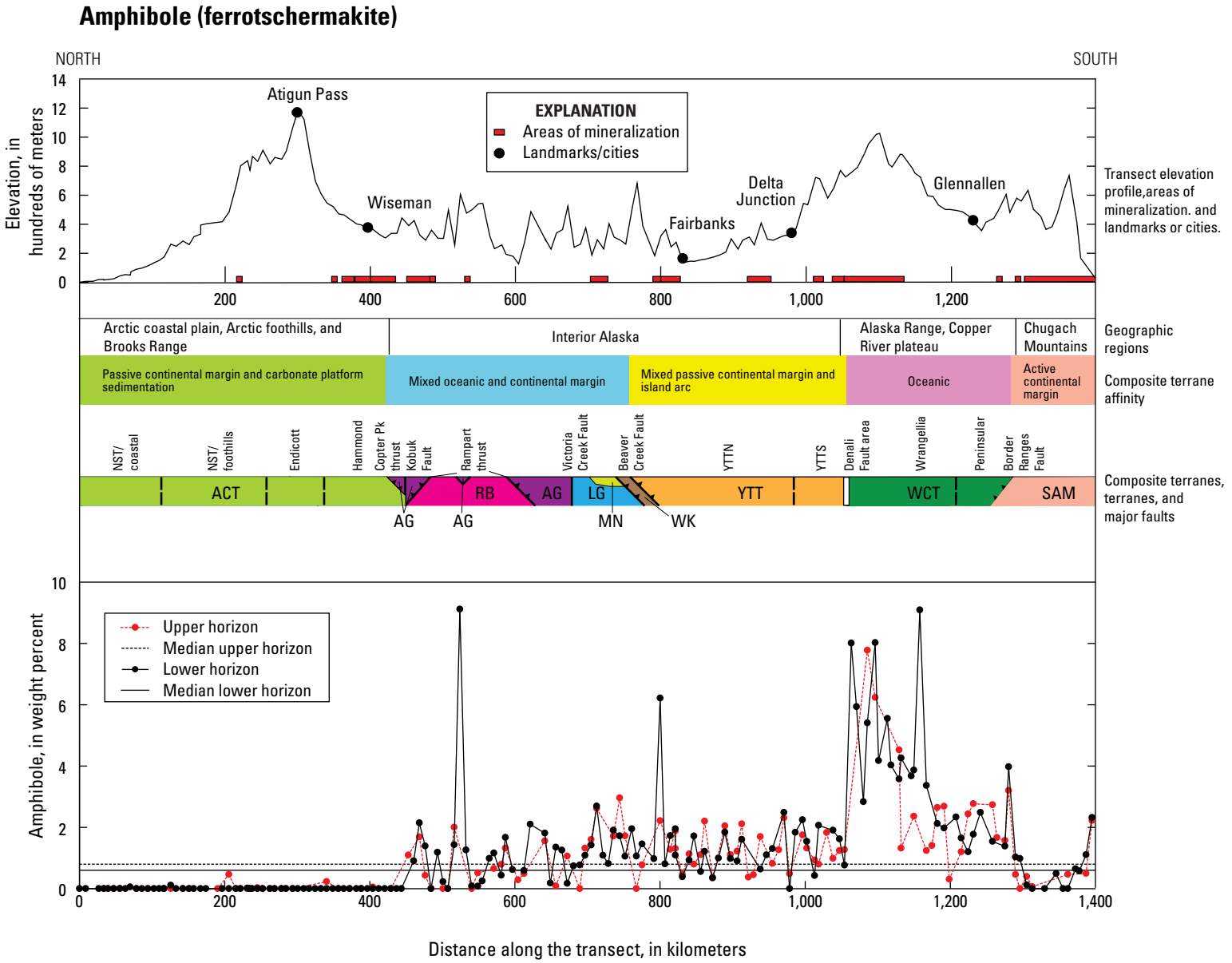

Figure 2.1. Distribution of amphibole (ferrotschermakite) along a north-to-south transect of Alaska.

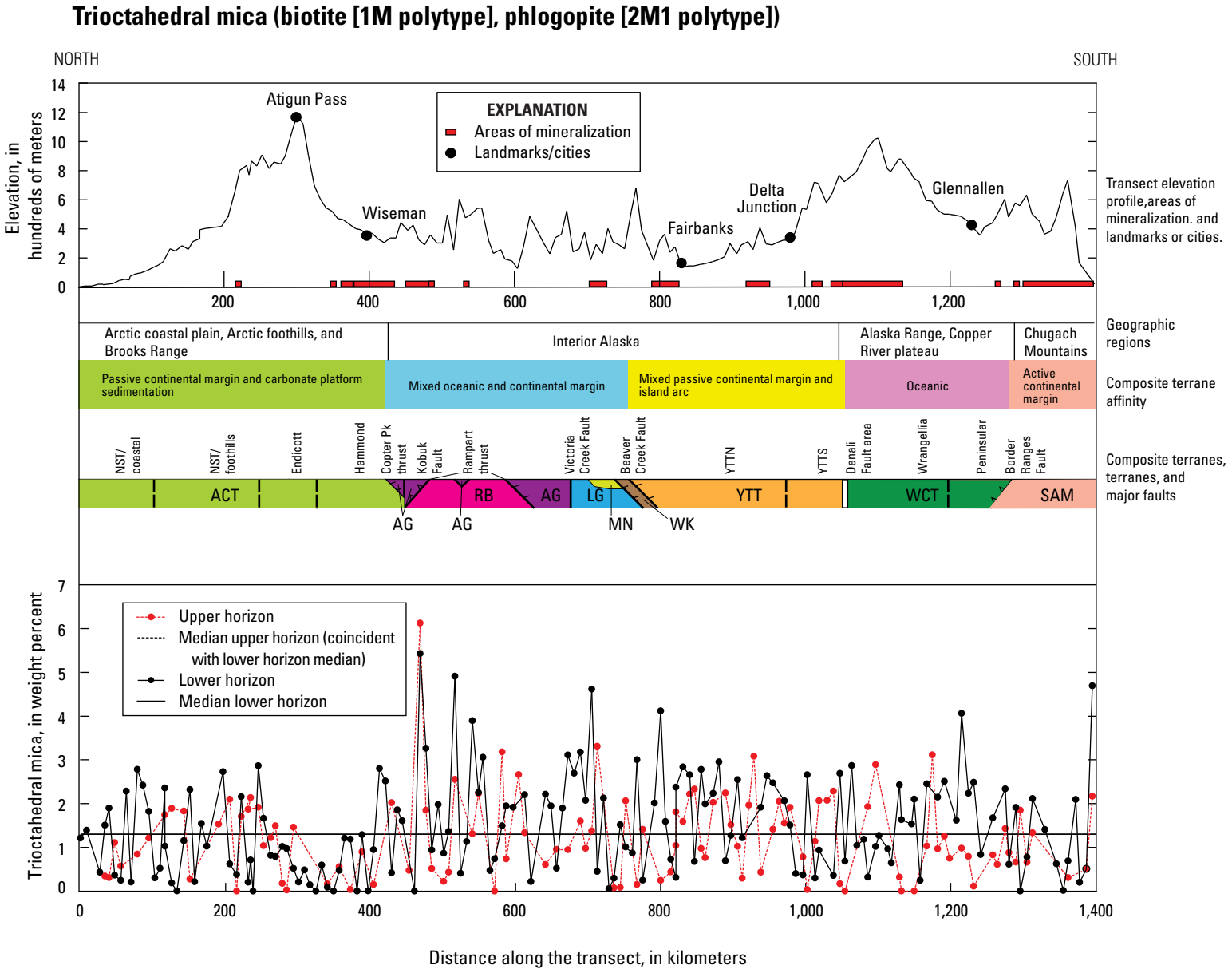

Figure 2.2. Distribution of trioctahedral mica (biotite [1M polytype], phlogopite [2M1 polytype]) along a north-to-south transect of Alaska.

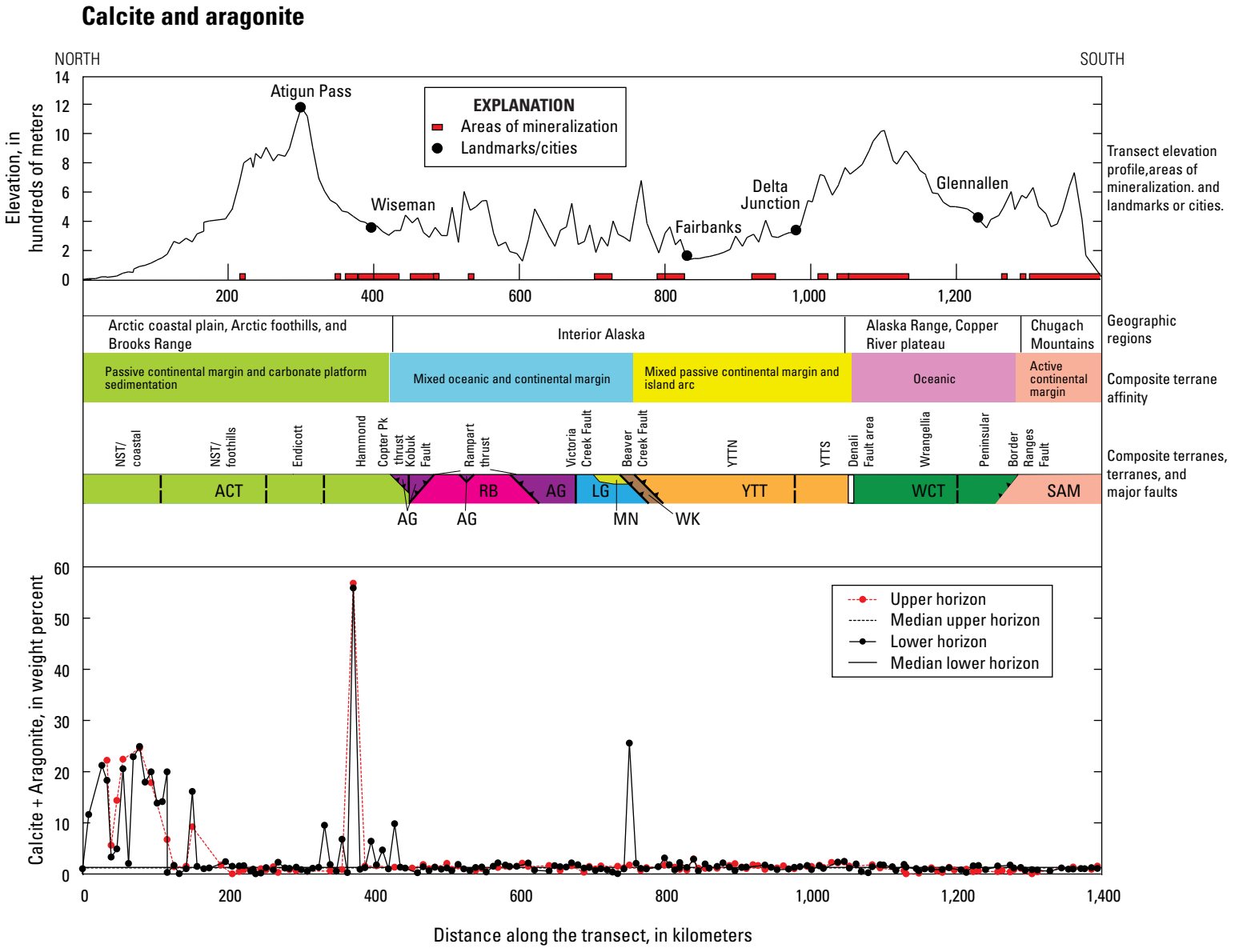

Figure 2.3. Distribution of calcite and aragonite along a north-to-south transect of Alaska.

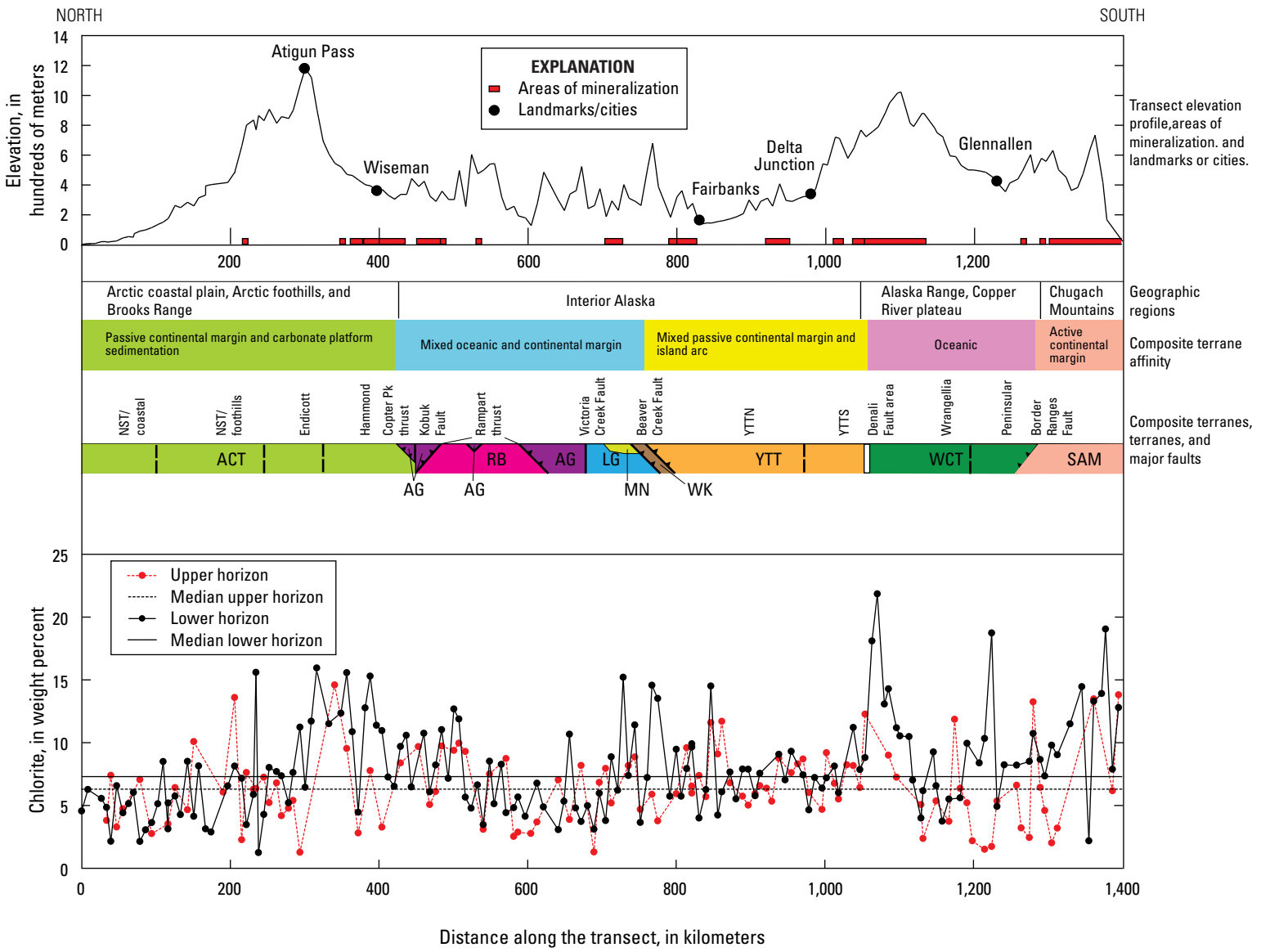

Figure 2.4. Distribution of chlorite (chlorite [Cca-1], chlorite [CMM], Fe-chlorite [Tusc], Mg-chlorite) along a north-to-south transect of Alaska.

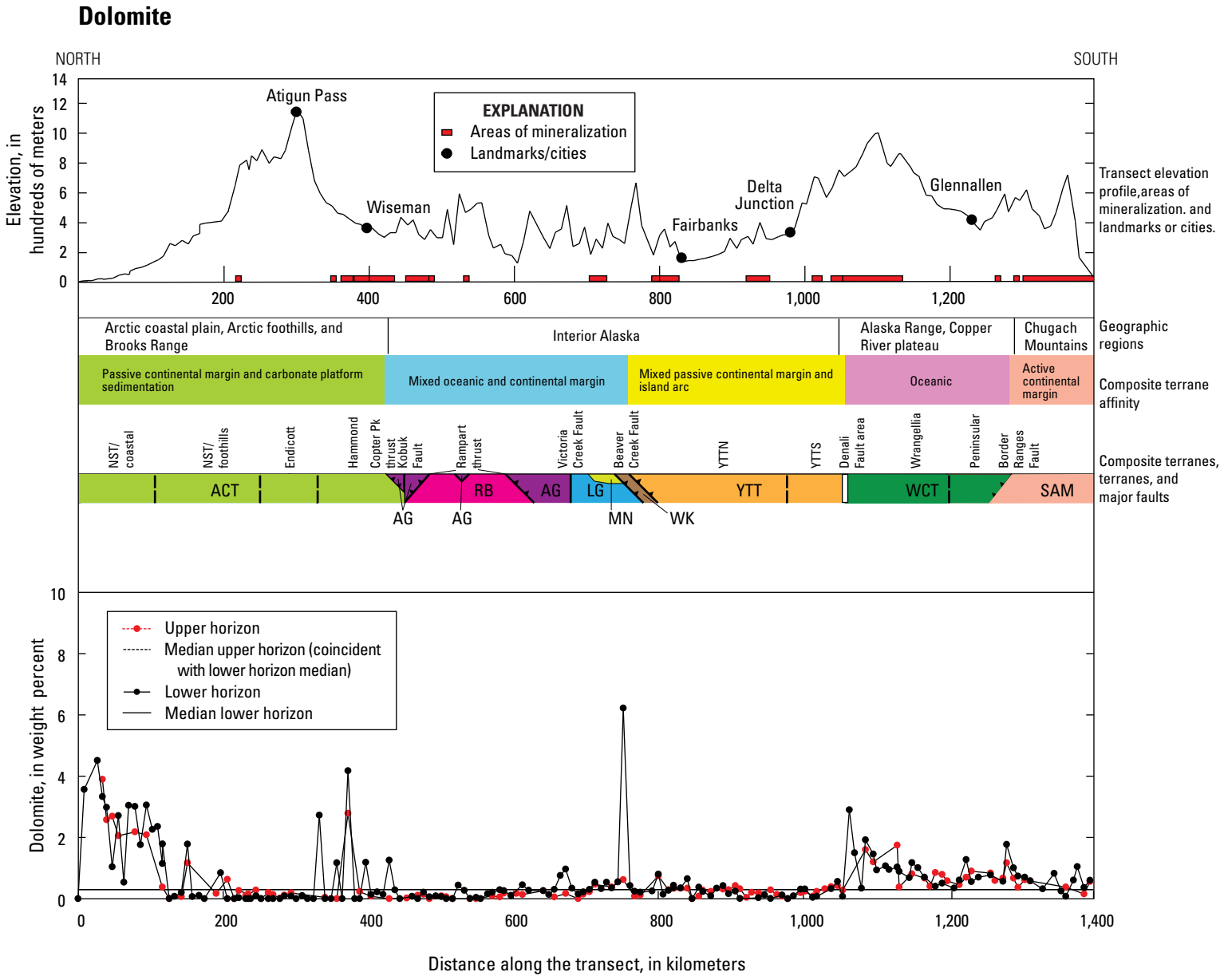

Figure 2.5. Distribution of dolomite along a north-to-south transect of Alaska.

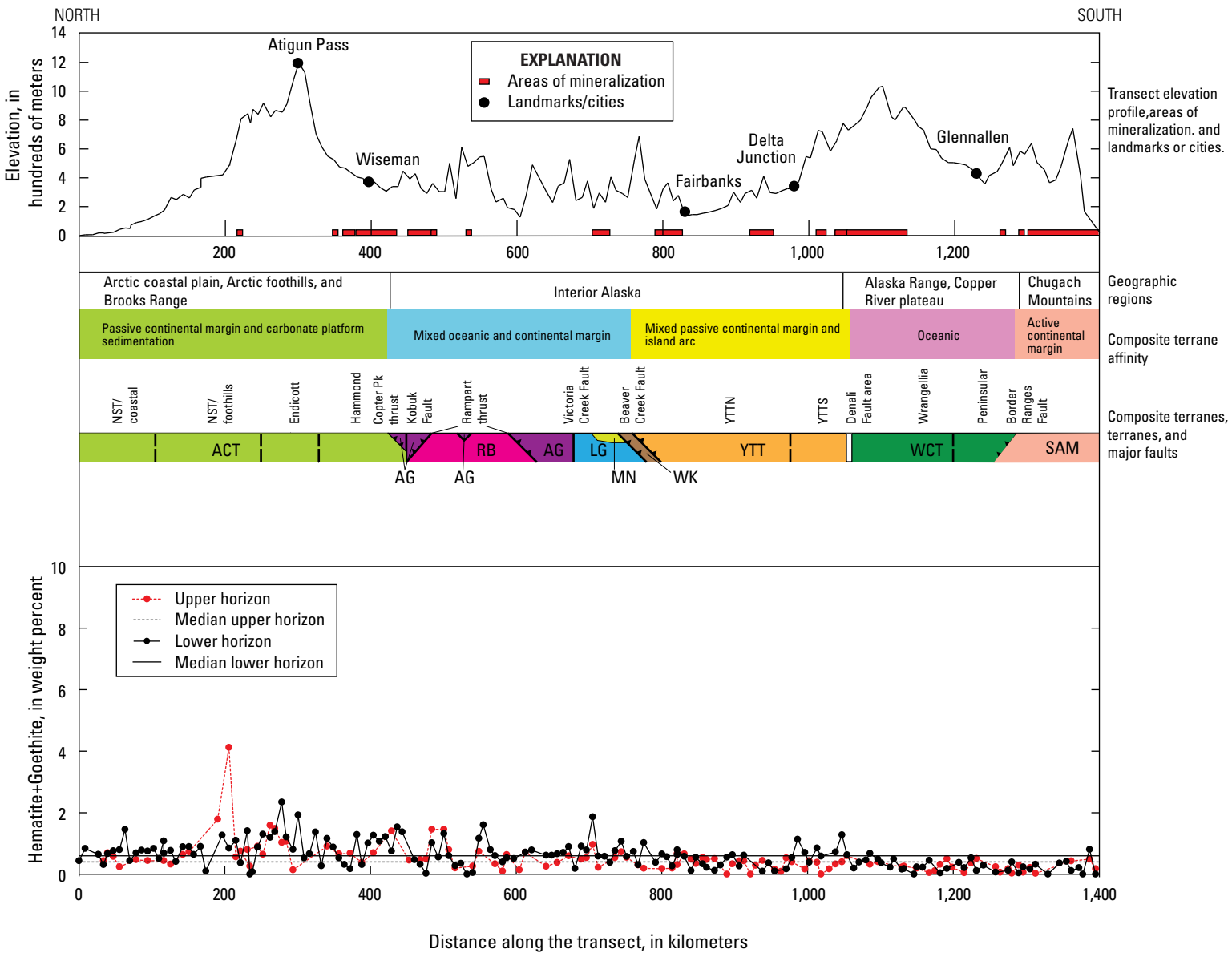

Figure 2.6. Distribution of hematite and goethite along a north-to-south transect of Alaska.

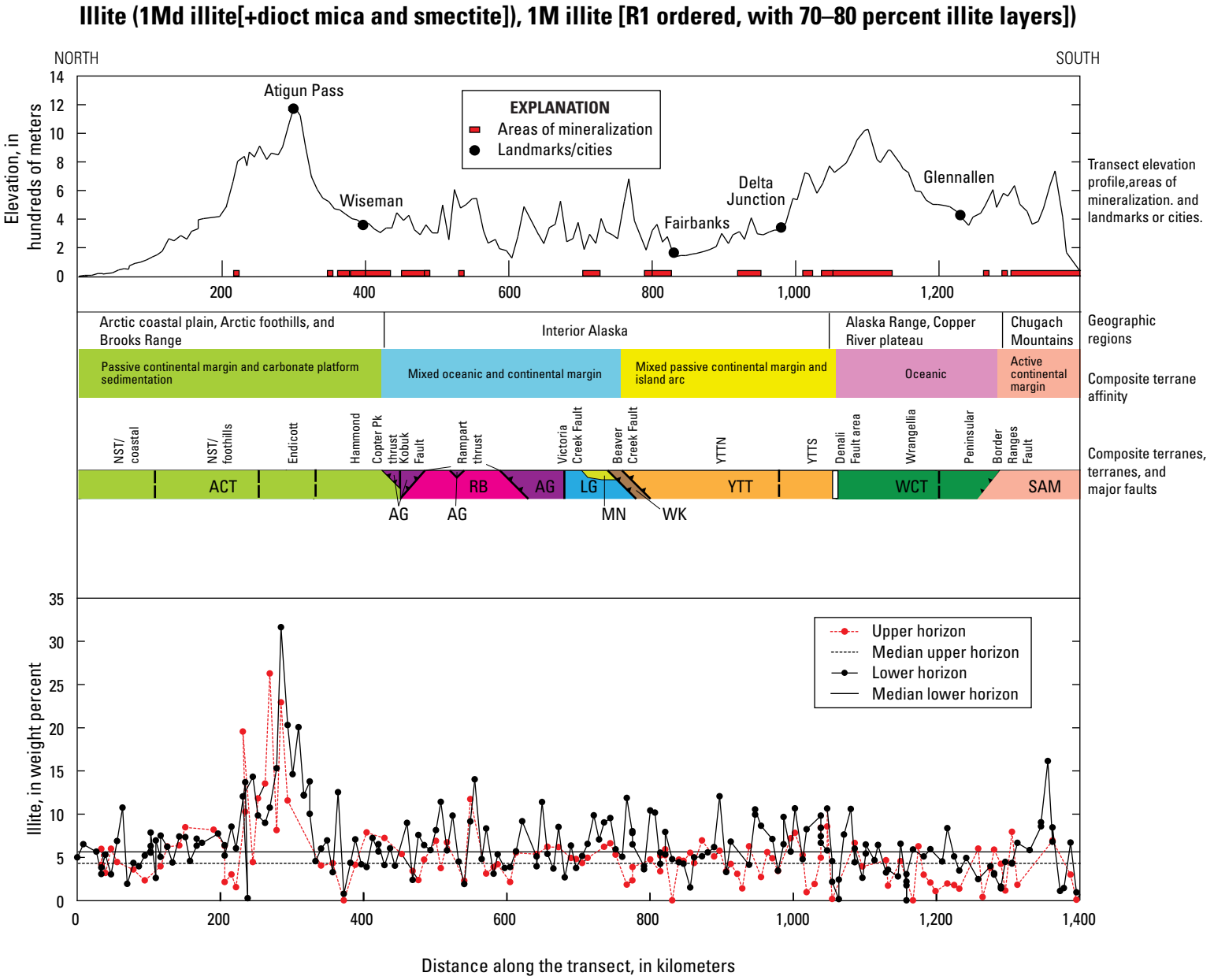

Figure 2.7. Distribution of illite (1Md illite [+dioctahedral mica and smectite], 1M illite [R1 ordered, with 70-80 percent illite layers]) along a north-to-south transect of Alaska.

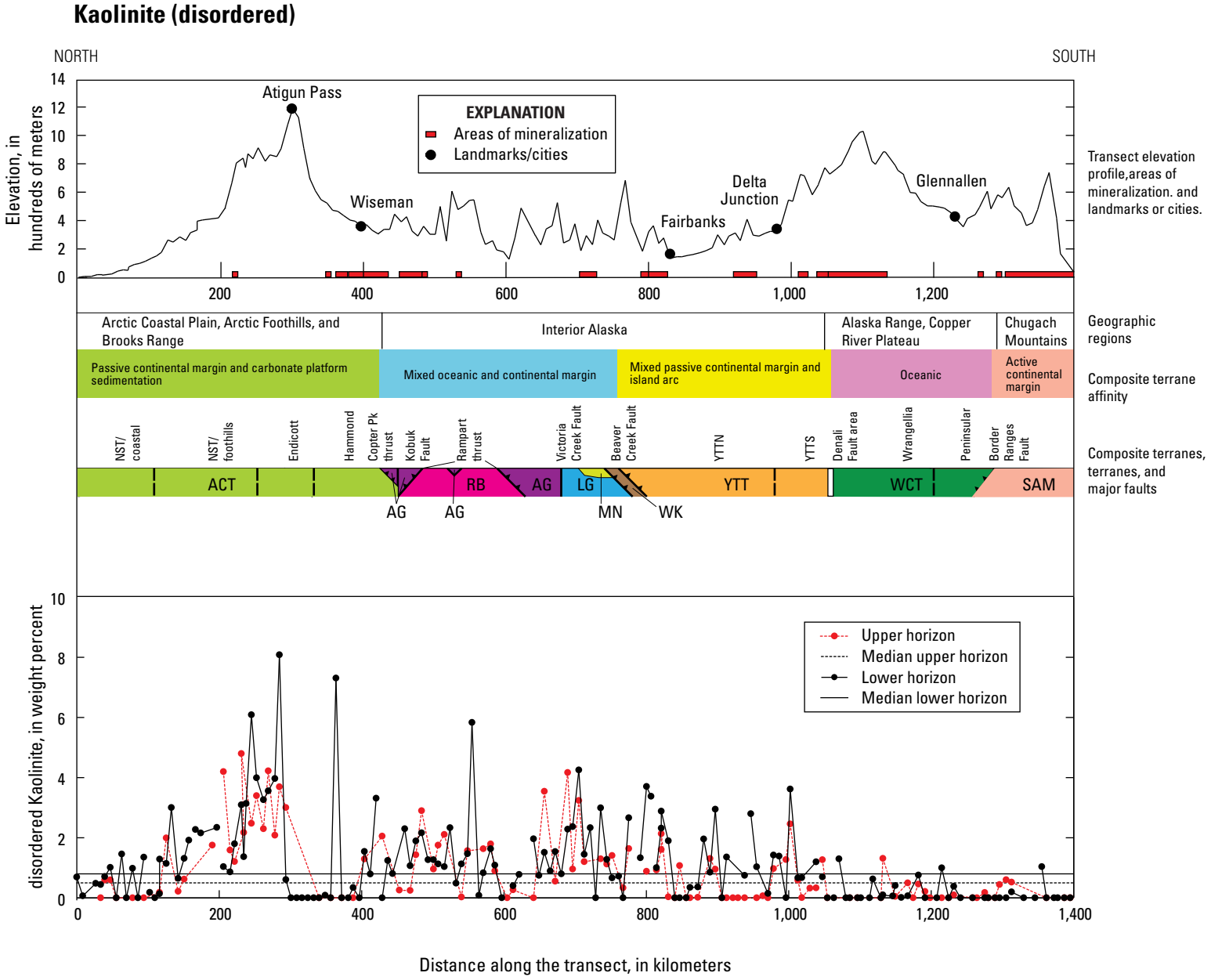

Figure 2.8. Distribution of kaolinite (disordered) along a north-to-south transect of Alaska.

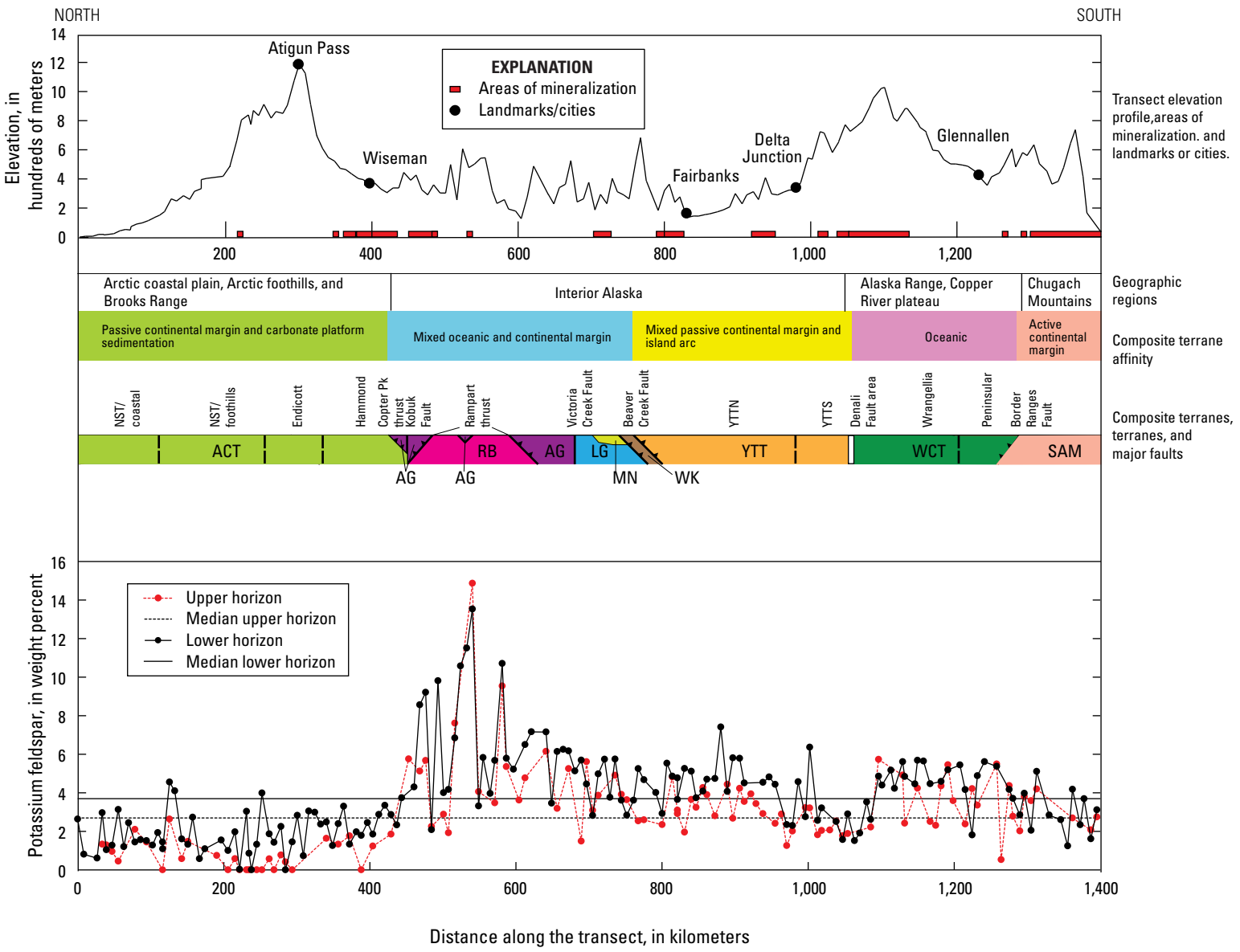

Figure 2.9. Distribution of potassium feldspar (intermediate microcline feldspar, sanidine feldspar, orthoclase feldspar) along a north-to-south transect of Alaska.

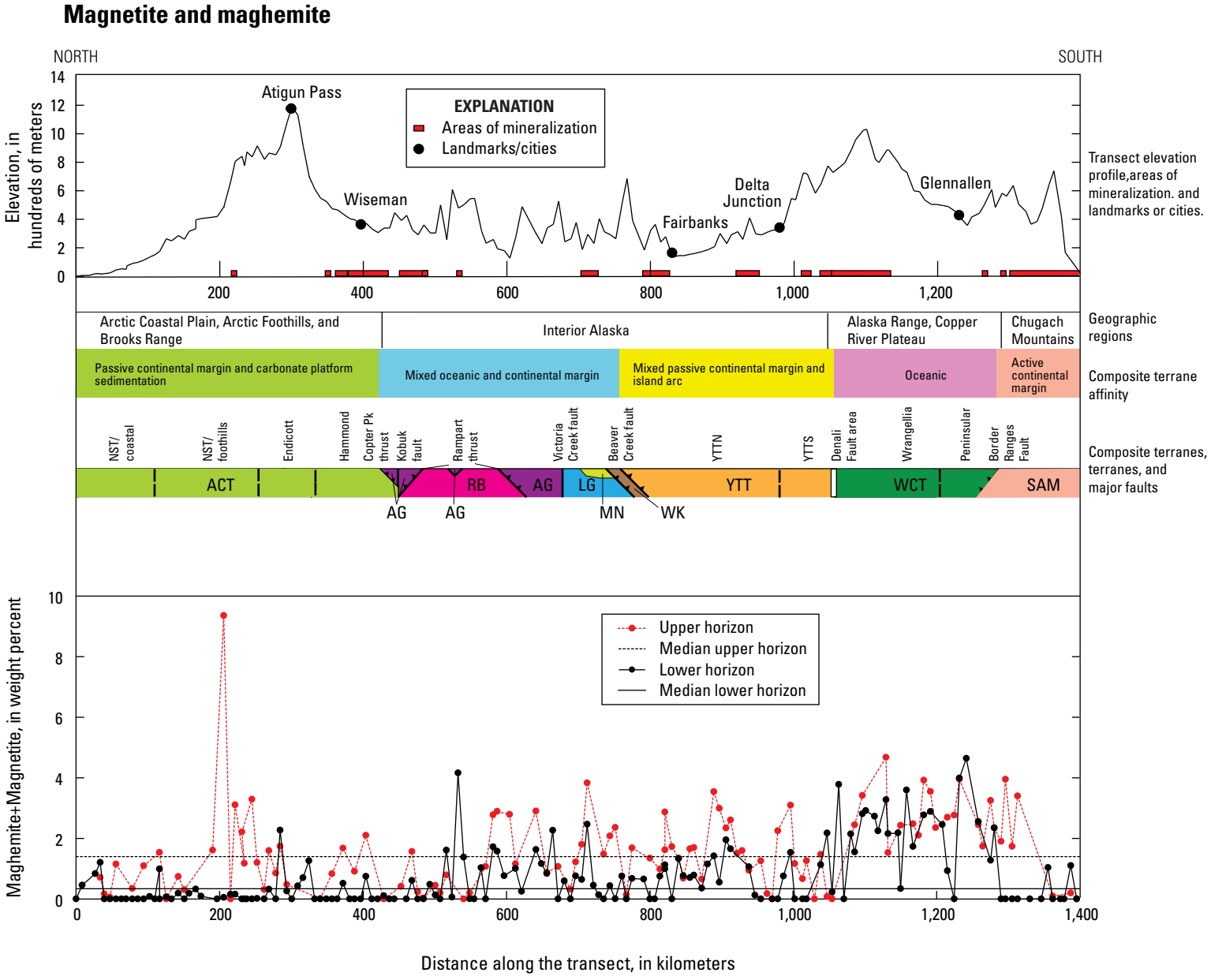

Figure 2.10. Distribution of magnetite and maghemite along a north-to-south transect of Alaska.

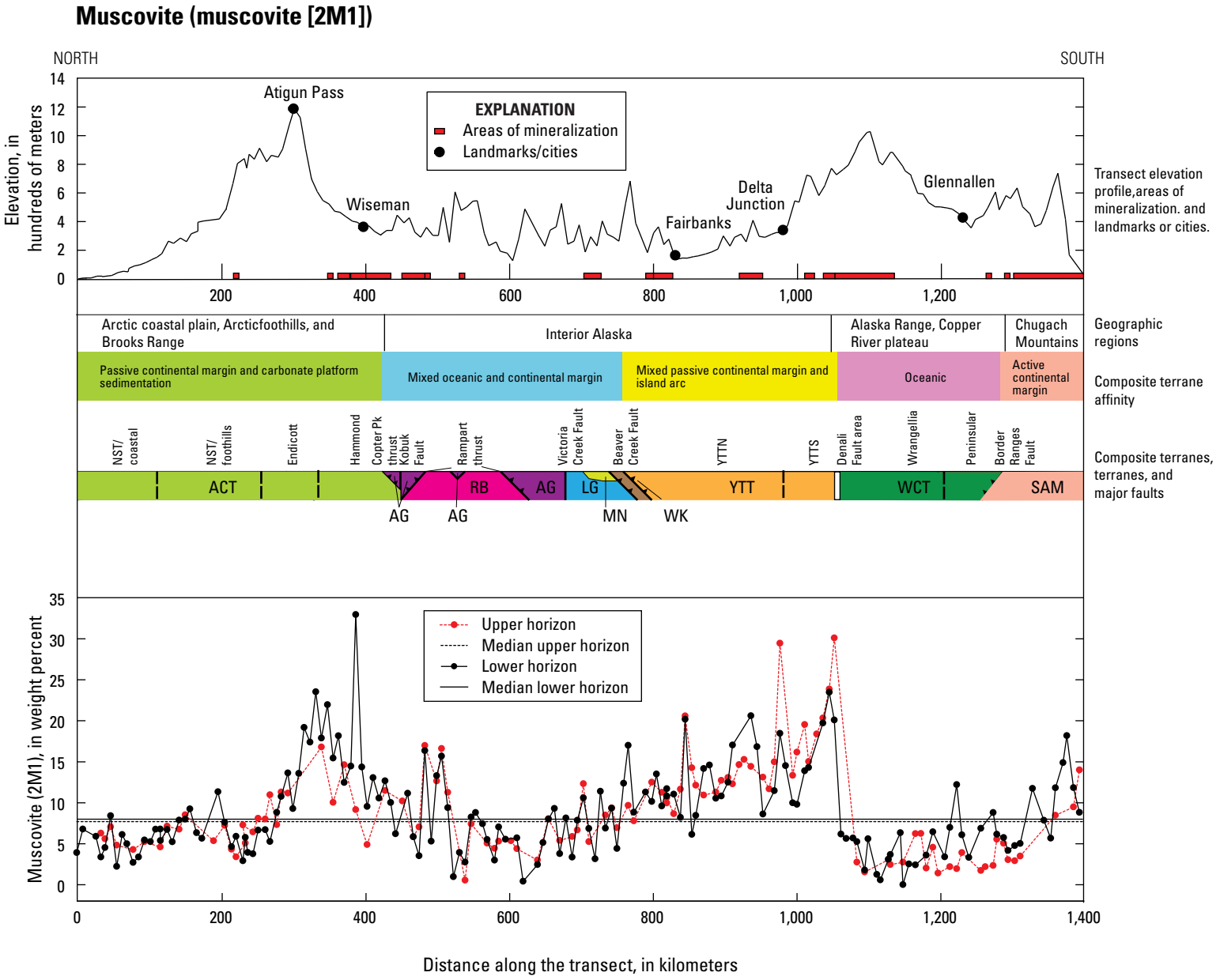

Figure 2.11. Distribution of muscovite ([2M1] polytype) along a north-to-south transect of Alaska.

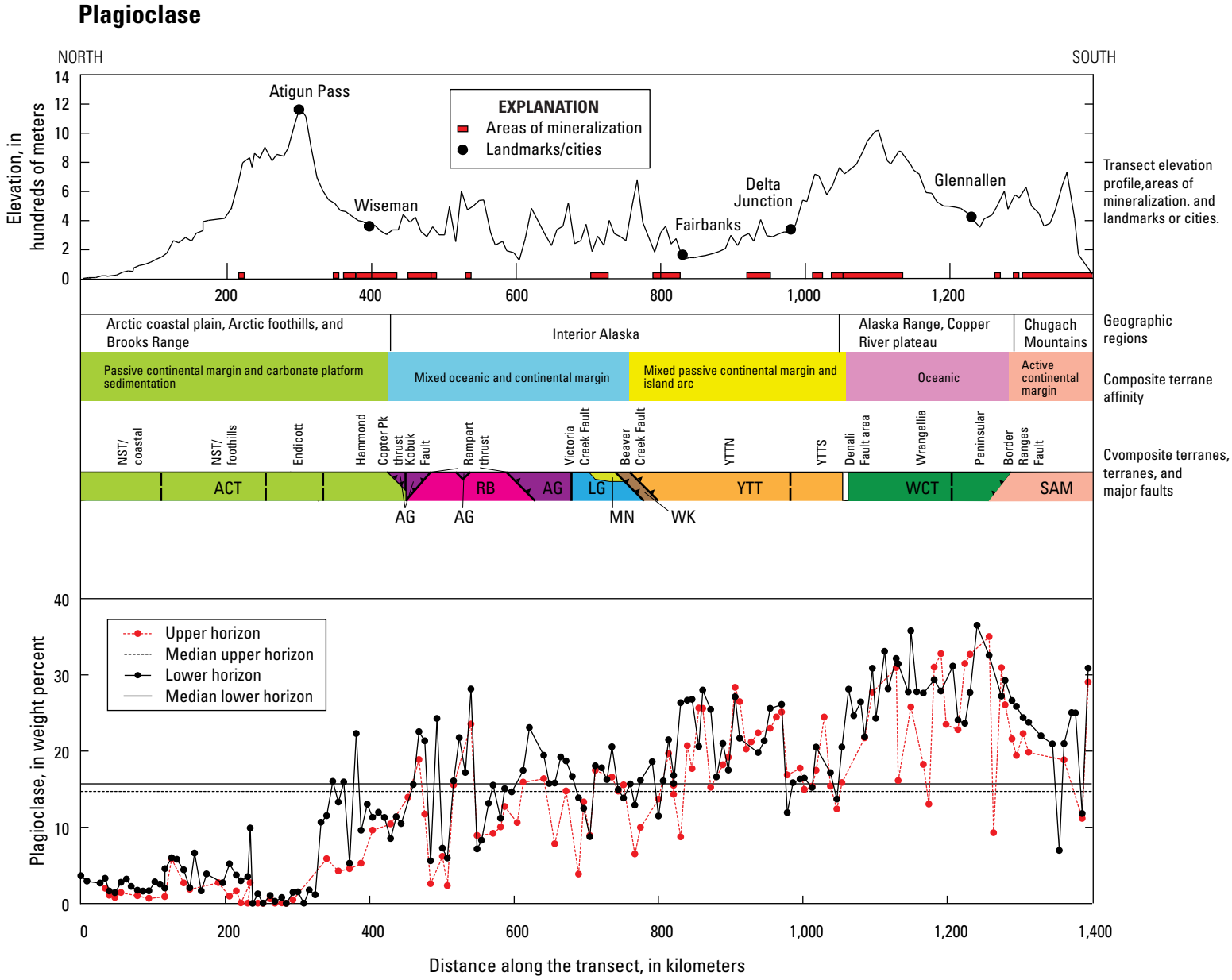

Figure 2.12. Distribution of plagioclase along a north-to-south transect of Alaska.

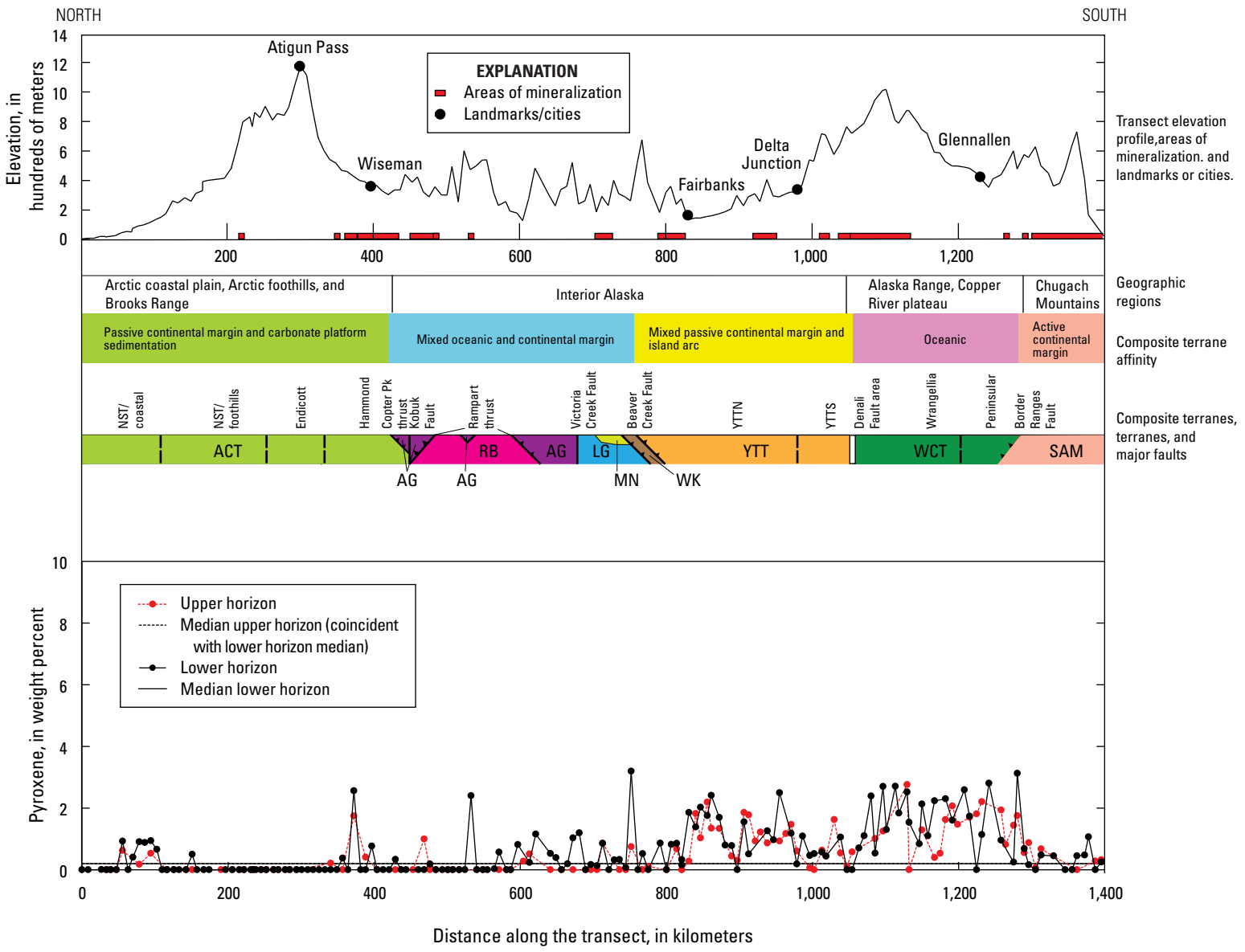

Figure 2.13. Distribution of pyroxene (diopside) along a north-to-south transect of Alaska.

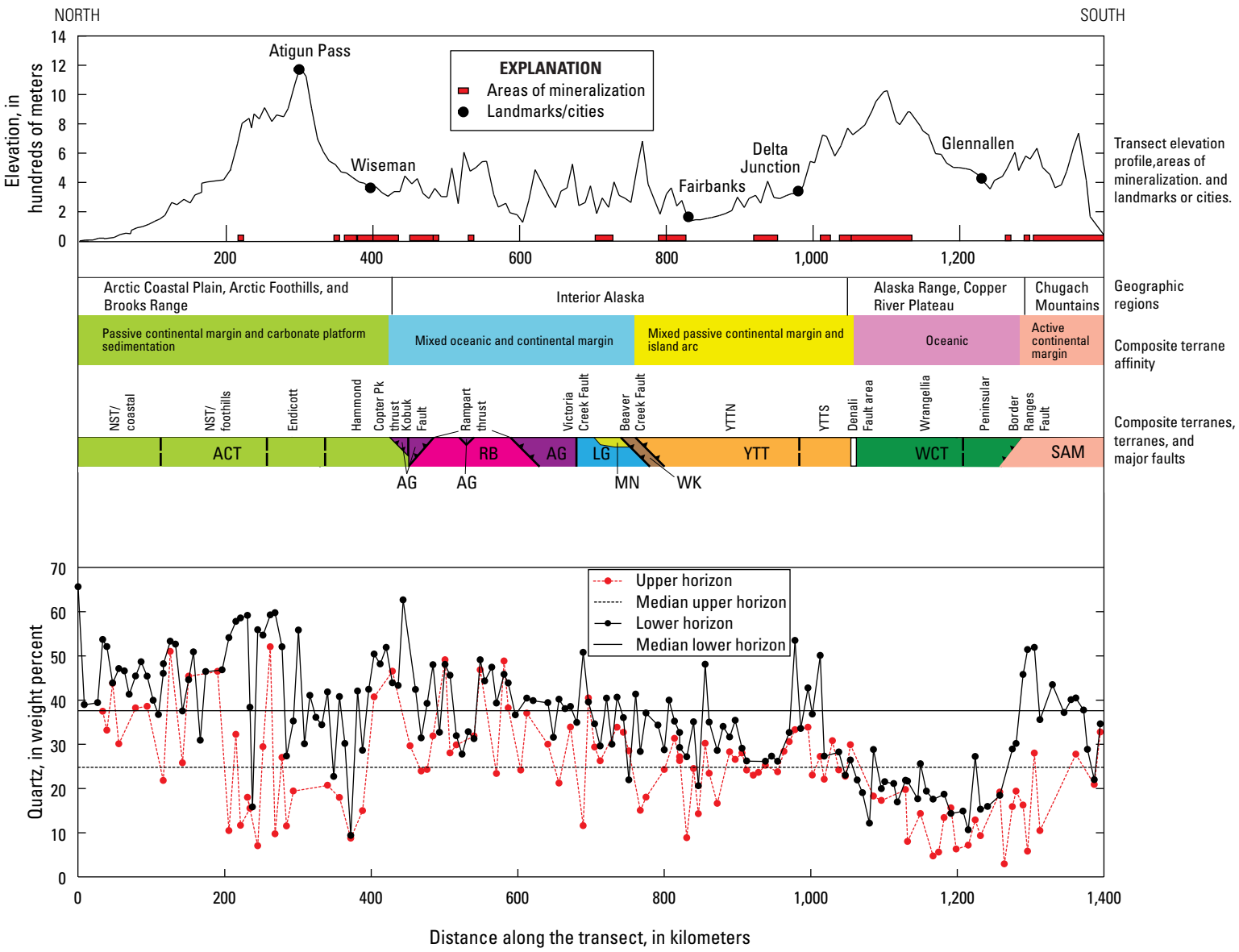

Figure 2.14. Distribution of quartz along a north-to-south transect of Alaska.

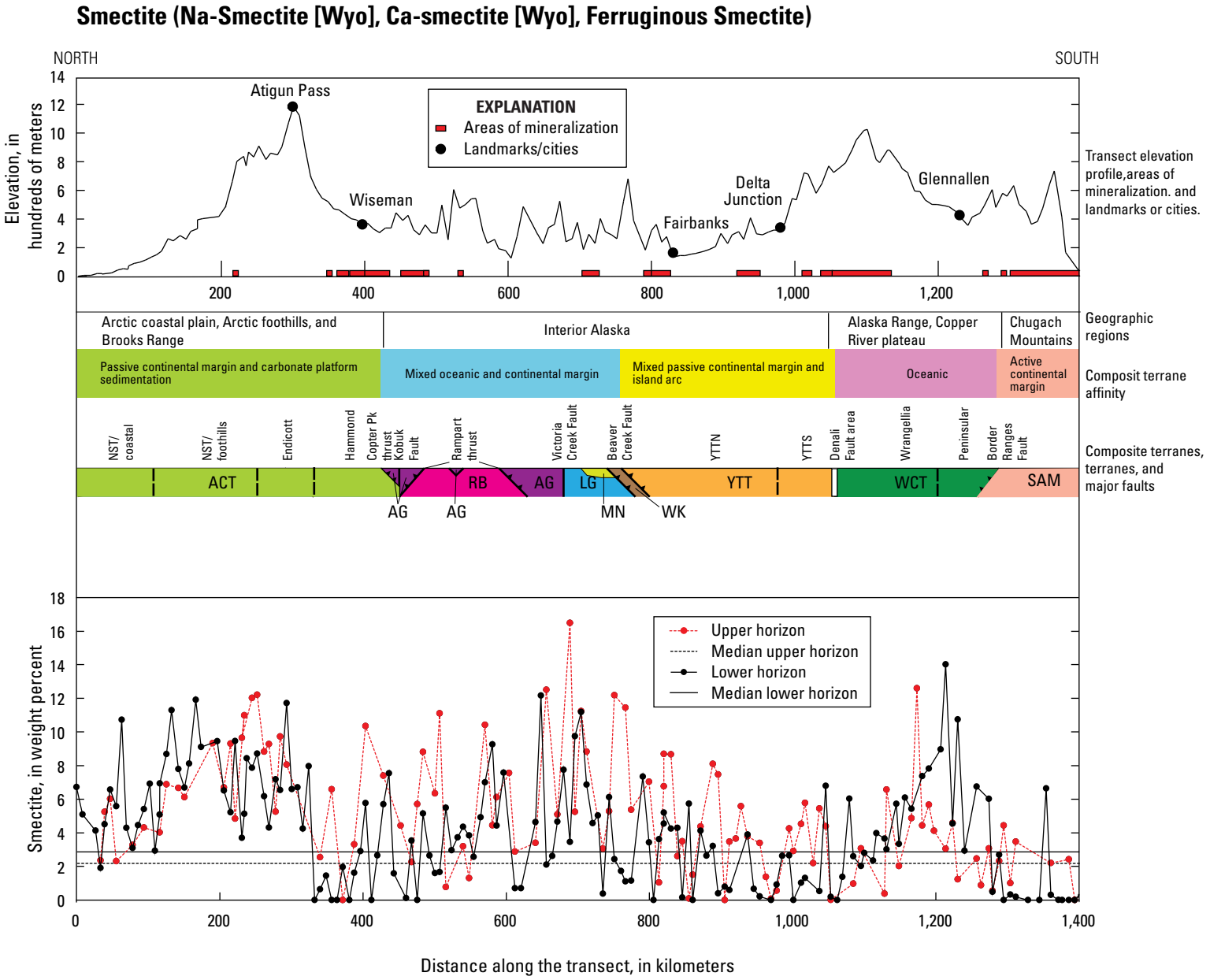

Figure 2.15. Distribution of smectite (Na-Smectite [Wyo], Ca-smectite [Wyo], ferruginous smectite) along a north-to-south transect of Alaska.