The Blackfoot volcanic field (BVF) is a region of Quaternary bimodal basalt-rhyolite volcanism that has infilled parts of two northwest-trending late Cenozoic grabens. The ~1500 km$^2$ field extends from the southern margin of the eastern Snake River Plain near Blackfoot, ID, 90 km to the south. In the northern and central parts of the BVF, compositionally and mineralogically similar, diachronous clusters of high-silica (76.5% SiO$_2$) rhyolite domes occur (northern domes 1.5 Ma; central domes 0.05 Ma). The volcanic domes are similar in age and composition to those of the eastern Snake River Plain (ESRP). When compared to magmatic arc and Basin and Range rhyolites, both groups of rhyolites are lower in FeO*, Sc, Sr, LREE and La/Yb ratio and higher in Cs, Hf, Ta, Yb, Th, and U. Quaternary ESRP and BVF rhyolites are especially high in Rb. There are some differences between the Quaternary ESRP and the Blackfoot Volcanic Field rhyolites, and between the clusters of domes within the BVF. The BVF is distinguished from the ESRP rhyolites by higher Cs (10-15ppm vs. 2.5ppm) and Th (50ppm vs. 20ppm). The BVF has lower quantities, as compared to the ESRP rhyolites, of FeO* (1.0% vs. 1.9%), La (25ppm vs. 60ppm), Zr (120ppm vs. 200ppm), and Hf (5ppm vs. 16ppm). All three sets, the central dome complex, northern dome complex and the ESRP rhyolites are distinguishable in their concentrations of Rb (500ppm vs. 350ppm vs. 300 ppm), Sr (8 ppm vs. 18 ppm vs. 0.6ppm), Ba (160ppm vs. 80 ppm vs. 55ppm), Ta (10ppm vs. 4ppm vs. 19ppm) and U (31ppm vs 13ppm for both the northern BVF and ESRP). Additionally, radiogenic isotopes differ for the three sets with the central dome complex having $^{87}$Sr/$^{86}$Sr$_{(i)}$ = 0.71026 and $\varepsilon$Nd = -11, the northern dome complex $^{87}$Sr/$^{86}$Sr$_{(i)}$ = 0.71168 and $\varepsilon$Nd = -12, and Big Southern Butte (ESRP) $^{87}$Sr/$^{86}$Sr$_{(i)}$ = ~0.708 and $\varepsilon$Nd = -4.5. Mineralogy differences also exist with the BVF rhyolites containing glomerocrysts and single phenocrysts of plag, qtz, bt, and oxyhornblende along with Fe-Ti oxides, ap and zrn; Quaternary ESRP rhyolites are aphyric to porphyritic containing plag, qtz, Fe-Ti oxides, fa, hd, ap, zrn, and chevkinite. Genesis of all three sets appear to be dominated by extreme fractionation from a mantle-derived mafic parent magma. However the BFVF parent magma assimilated ~25% of Archeon continental crust, in contrast to <1% for the ESRP.