

SiO_2	52.63	Na_2O	1.41
TiO_2	0.62	K_2O	2.29
Al_2O_3	16.76	$\text{H}_2\text{O}+$	0.12
Fe_2O_3	2.86	$\text{H}_2\text{O}-$	1.17
FeO	10.74	P_2O_5	0.33
MnO	0.38	CO_2	0.10
MgO	4.33		
CaO	6.17		
			99.91
		S.G.....	2.954

In the quantitative classification, this rock falls in an unnamed sodipotassic subrang of bandase.

Granite (Micropegmatite). The quartz diorite, with a decrease in hornblende and plagioclase and an increase in quartz and micropegmatite, gradually passes into granite (micropegmatite), which occurs at or near the upper contact of the sills; in the latter case closely resembling the distribution of the materials in the laccoliths of Shonkinsag and Square Butte¹. The thickness of the granite (micropegmatite) bears no relation to the thickness of the sill, for cases will be cited below where sills 140 feet thick contain a large amount of granite (micropegmatite), while other sills, in the same section, 900 feet in thickness, are entirely basic. In the hand specimen the granite (micropegmatite) is a fine-grained, holocrystalline to porphyritic rock of pinkish-grey colour, in which can be identified biotite, quartz, and feldspar. Under the microscope, are seen the essential constituents, quartz, biotite, and micropegmatite, with the accessory constituents, micropertthite, and plagioclase—probably andesine (Plate I, fig. 2.) The rock is very quartzose, the quartz occurring in large irregular masses associated with micropegmatite, in which the quartz holds the orthoclase. The latter is filled with dust-like inclusions and is generally scattered evenly throughout the quartz in small, round masses which extinguish simultaneously. Again, the orthoclase is only seen in the peripheral parts of the quartz, while the centre is quite free from such inclusions. Plagioclase—andesine to labradorite—is present in small amounts. Biotite is very plentiful and

¹L. V. Pirsson, U. S. G. S. Bull. 237, p. 43.