

**Table S1.** Descriptions of the lithology of the Bakhtegan basin (Hasan Shahi & Dastoor, 1995)

Unit	Description	Age
Qft2	Low-level piedmont fan and valley terrace deposits	Quaternary
Kbgp	Undivided Bangestan Group, mainly limestone and shale	Cretaceous
Kda-fa	Grey to brown, partly oolitic, massive limestone;	Cretaceous
JKkpg	Undivided Khami Group, consisting of massive thin-bedded limestone	Jurassic Cretaceous
Eja	Grey and brown weathered, massive dolomite	Eocene
Plbk	Forming conglomerate and low -weathering cross-bedded sandstone	Pliocene
TRJs	Dark grey shale and sandstone	Jurassic
Kgu	Bluish grey marl and shale with subordinate thin-bedded argillaceous - limestone	Cretaceous
Ktb	Massive, shelly, cliff-forming, partly anhydrite limestone	Late.Cretaceous
Qft1	High-level piedmont fan and valley terrace deposits	Quaternary
gb	Layered and isotropic gabbro	Jurassic-Cretaceous
Ek	Well-bedded green tuff and tuffaceous shale	Eocene
pC-Ch	Rock salt, gypsum & blocks of contorted masses of sedimentary material	Precambrian-Cambrian
Lake	Lake	Late.Eocene-Oligocene
TRKurl	Purple and red thin	Triassic-Cretaceous
MPlfgp	Reefal coral and algal limestone	Miocene
PeEsa	Pale red marl, marlstone, limestone, gypsum, and dolomite	Paleocene-Eocene
Ksv	Grey, thick-bedded to massive limestone with thin marl	Late.Cretaceous
Qcf	Clay flat	Quaternary
pd	Peridotite including harzburgite, dunite, lertzolite and websterite	Triassic-Cretaceous
KEpd-gu	Grey and brown, medium - bedded to massive fossiliferous limestone	Late.Cretaceous

## References

Hasan Shahi H, Dastoor F. 1995. Reconnaissance soil survey of Neyriz Plain. Tehran (Iran): Soil and Water Research Institute (Ministry of Agriculture Jihad).