Gale crater dating

Sheepbed Mudstone
4.21+/-0.35Ga
Farley+ 2013

Mojave 2
Mudstone High T
4.07+/-0.63Ga
Martin+ 2017

Mojave 2 Mudstone
Low T most recent water
2.57+/-0.39Ga
Martin+ 2017

Isidis Basin

Noachian NP
Basement
?

Isidis
3.96Ga
Werner 2008

Jezero
?

Olivine-clay-carb
3.82+/-0.07Ga
Mandon+2020

Syrtis start
3.6-3.9Ga
Robbins+ 2011

Jezero Delta
?

Crater Floor
2.6Ga
Shahrzad+ 2019

Syrtis end
1.61Ga
Robbins+ 2011

Martian Basins and Magnetism

Strongest
Magnetized rocks
4.2 Ga
Werner+ 2008

Hellas
3.99Ga
Werner 2008

Isidis
3.96Ga
Werner 2008

Argyre
3.83Ga
Werner 2008

Tharsis oldest unit
3.67Ga
Isherwood+ 2013

End Basin volcanism
1.4Ga
Wichman+Schulz 1989

Radiometric dating

Chondrite age
4.5647+/-0.6 Ga
Amelin+ 2002

Oldest NWA7034
4.42 ± 0.07Ga
Nyquist+ 2016

ALH84001
4.091 ± 0.030Ga
Lapen+ 2010

ALH84001 carbonates
3.90 +/-0.04 Ga
Borg+ 1999

Nakhlite Formation
1.3Ga
Treiman+ 2005

Putative Ocean shorelines

Arabia Ocean
4.0 Ga
Citron+ 2018

Deutronillus Ocean
3.6 Ga
Citron+ 2018