



Unit	Age	Description	Reference
(1) Spring waters	present	Water fed by high-alkaline, low temperature (~35–50°C), fault-fed springs.	Baker (1958), Baker (1963), Guth (2007), Lee et al. (2016)
(2) Ephemeral lake	present-0.01 Ma	Recent lake sediments and evaporite deposits, primarily trona.	Behr (2002)
(3) Holocene sediments	Holocene	Recently deposited sediments including alluvium, landslides, sands and gravels, Gelai sands, and younger lake Natron and Magadi deposits.	Guth (2007), Sherrod et al. (2013)
(4) Pleistocene lacustrine deposits	Pleistocene	Recently deposited lake sediments, including High Magadi Beds, Olorongo Beds, Olorgesailie Formation, Kedong flood, Magadi Green and Mitchell (1976), Crossley (1979), Potts et al. (1988), Potts and Deino (1995), Behr (2002), Brooks et al. (2007), Guth (2007)	Baker (1958), Baker (1963), Guest and Pickering (1966), Baker and Mitchell (1976), Crossley and Knight (1981), Crossley (1979)
(5) Debris avalanches	present-0.8 Ma	Poorly sorted tuff breccias forming hummocky topography north of Oldoinyo Lengai	Kervyn et al. (2008), Sherrod et al. (2013)
(6) Cinder/tuff cones and maars	present-1.0 Ma	Small monogenetic vents observed on Gelai, Oldoinyo Lengai, and Magadi Trachyte lavas. Includes Alaho, Oldoinyo Nyokie, Loolmurwak.	Guth (2007), Sherrod et al. (2013), Muirhead et al. (2015)
(7) Mau ashes	0.6 Ma	Pyroclastic deposits in the far northwest corner of Magadi Basin.	Crossley and Knight (1981)
(8) Mosiro basalts	0.6 Ma	Fissure-fed lava flows of limited extent (~11 km ²) along the Nguruman fault.	Crossley (1979)
(9) Magadi (Plateau) trachytes	1.0-1.4 Ma	Extensive, basin-filling, flood trachyte lavas covering an area of 1997 km ² . Extends from the northern slopes of Gelai to the southern slopes of Suswa.	Baker and Mitchell (1976), Baker et al. (1988), Guth (2007), This study
(10) Natron escarpment deposits	1.2-4.1 Ma	Volcanic and sedimentary deposits observed in the uplifted footwall of the Natron border fault. Includes Mosinik lavas, flood lavas, Sambu volcanics, Peninj Group, Humbu and Moinik Formation.	Isaacs and Curtis (1974), Manega (1993), Foster et al. (1997), Neukirchen et al. (2010), Sherrod et al. (2013), This study
(11) Ol Tepesi volcanics	1.4-1.7 Ma	Basalt and benmoreite flows between Olorgesailie and Ol Esayet volcanoes.	Baker and Mitchell (1976), Guth (2007)
(12) Kordjya volcanics	1.7-2.2 Ma	Basalt and trachyte flows in west Magadi basin.	Baker and Mitchell (1976), Guth (2007)
(13) Limiru volcanics	2.1 Ma	Trachyte and pantellerite lavas in northeast Magadi basin.	Baker and Mitchell (1976), Baker et al. (1988), Guth (2007), This study
(14) Ewaso Ngiro trachytes	2.1 Ma	Small lava flow (area = 48 km ²) in west Magadi basin.	Crossley (1979)
(15) Mosiro trachytes	1.9-2.3 Ma	Trachyte lavas in the west Magadi basin.	Crossley and Knight (1981)
(16) Singaraini basalt	2.0 Ma	Widespread basalt flows in the eastern side of Magadi basin.	Baker and Mitchell (1976), This study
(17) Tigoni trachytes	~2.2-2.7 Ma(?)	Trachyte lavas east of the Magadi basin, conformable with Limiru.	Saggerson (1991), Baker et al. (1988)
(18) Karura-Kabete trachytes	~2.2-2.7 Ma(?)	Trachyte lavas east of the Magadi basin, conformable with Limiru lavas.	Saggerson (1991), Baker et al. (1988)
(19) Olorgesailie volcanics	2.2-2.7 Ma	Nepheline and phonolite lavas from Olorgesailie	
(20) Kirikit basalts	2.5-5.1 Ma	Basalt flows on the western side of Magadi basin. Lavas cut by the Nguruman fault.	Matheson (1966), Baker et al. (1971), Crossley (1979)
(21) Nairobi trachytes	3.2-3.5 Ma	Trachyte lavas east of the Magadi basin.	Baker et al. (1971)
(22) Narok agglomerate	~3.5 Ma(?)	Agglomerate with numerous lithic clasts, including trachyte and phonolite blocks east of the Magadi basin.	Matheson (1966)
(23) Kinangop and Kerichwa Valley Tuffs	3.3-3.7 Ma	Trachytic tuffs east of the Magadi basin.	Baker et al. (1971), Baker et al. (1988)
(24) Lengitoto Trachyte	5.0-6.9 Ma	Early rift lavas observed on the Nguruman escarpment.	Crossley (1979)
(25) Kandizi Phonolite		Pre-rift flood volcanism observed currently on the eastern edge of the Magadi basin.	Chapman and Brook (1978), Smith (1994), Guth (2007)
(26) Melanephelenite		Pre-rift volcanism in the Magadi basin. Includes the Kishalduga Formation.	Crossley (1979)
(27) Kapiti phonolites	12.9-13.1 Ma	Pre-rift flood volcanism observed currently on the eastern edge of the Magadi basin.	Baker et al. (1971)
(28) Metamorphic basement	Precambrian	Metamorphic rocks including gneiss, granulite, quartzite, marble, crystalline limestone and pelitic sedimentary rocks.	Nyamai et al. (2003)
Composite volcano	Age	Reference	
(29) Suswa	present-0.24 Ma	Baker et al. (1988)	
(30) Oldoinyo Lengai	present-0.35 Ma	Sherrod et al. (2013), This study	
(31) Kerimasi	1.1 Ma	Mana et al. (2015)	
(32) Gelai	1.0-1.2 Ma	Mana et al. (2015), This study	
(33) Ketumbeine	1.2-2.2 Ma	Mana et al. (2015)	
(34) Shompole	2 Ma-present(?)	Fairhead et al. (1972), Le Gall et al. (2008)	
(35) Lenderut	2.5-2.7 Ma	Baker (1963), Fairhead et al. (1972), Baker and Mitchell (1976)	
(36) Oldonyo Sambu	2.0-3.5 Ma	Isaacs and Curtis (1974), This study	
(37) Olorgesailie	2.2-2.7 Ma	Fairhead et al. (1972)	
(38) Ngong	2.5-2.6 Ma	Baker et al. (1971)	
(39) Mosonik	4.1 Ma	This study	
(40) Ol Eyaseti	5.6-6.7 Ma	Baker et al. (1971)	