

Group	Thickness (m)	Palaeo water depth range	Comments	Sources for thickness estimates
Kundelungu	2000 - 3000	50 - 250	Inferred thickness based on apatite fission track analysis; water depth inferred from Kundelungu facies in L83 and KADD04	> 2 km of stratigraphy removed since the Miocene (Daly et al., 2020); > 1km Kundelungu thickness in DRC (Batumike et al., 2007)
Nguba	500 - 1000	10 - 500	Inferred thickness based on Nguba thickness in L83, sheared clast proportions, and increased Nguba thickness northwards into the D.R.C. Water depth inferred from facies in L83	Based on core logging and comparison with L83; Selley et al. (2018)
Mwashia	150 - 500	10 - 250	Inferred thickness based on thickness increases of Mwashia and Nguba units to the NW from IT26 to KN192 Water depth inferred from facies in L83 and KN192	Based on core logging and comparison with IT26, L83, KN192
Upper Roan	1000 - 2000	0 - 50	Inferred thickness based on Upper Roan thickness in RCB2; water depth inferred from RCB2	Based on core logging, comparison with RCB2;
Lower Roan	1330 - 1800	0 - 10	Up to 470 m of Lower Roan sediments added based on facies analysis and thickness of conglomerates in RCB2	Based on core logging, facies analysis, core logging of RCB2 and facies

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Kundelungu	2000 - 3000	50 - 250	Inferred thickness based on apatite fission track analysis; water depth inferred from Kundelungu facies in L83 and KADD04	> 2 km of stratigraphy removed since the Miocene (Daly et al., 2020); > 1km Kundelungu thickness in DRC (Batumike et al., 2007)
Nguba	400 - 800	10 - 500	140 – 240 m of Nguba sediments added to account for missing top of Nguba	Based on core correlation with L83 and IT26, and comparison with Kipushi (Van Wilderode et al., 2013)
Mwashia	487	10 - 250		Based on core logging
Upper Roan	578	0 - 250		Based on core logging
Lower Roan	400 - 1200	0 - 250	80 m of Lower Roan sediments inferred to account for erosion; Up to 800 m of Lower Roan sediments inferred to account for missing base of Lower Roan, based on Lower Roan thicknesses in the Konkola Basin	Based on core logging; Sweeney et al. (1986), Torremans et al. (2013) Max. water depth of Lower Roan mudstones estimated to be 250 m, based on an approximate mean depth of East African Rift Valley lakes

RCB2

Group	Thickness (m)	Palaeo water depth range	Comments	Sources for thickness estimates
Kundelungu	2000 - 3000	50 - 250	Inferred thickness based on apatite fission track analysis; water depth inferred from Kundelungu facies in L83 and KADD04	> 2 km of stratigraphy removed since the Miocene (Daly et al., 2020); > 1km Kundelungu thickness in DRC (Batumike et al., 2007)
Nguba	400 - 500	10 - 500	Water depth inferred from Nguba facies in L83	Based on correlation with L83 and IT26
Mwashia	150 - 500	10 - 250	Water depth inferred from Mwashia facies in L83, KN192	Based on correlation with L83 and KN192
Upper Roan	918 - 1200	0 - 250	Up to 282 m of Upper Roan inferred to account for missing top of Upper Roan	Based on core logging and correlation with KN192
Lower Roan	832 - 900	0 - 250	Up to 68 m of Lower Roan sediments inferred to account for missing base of Lower Roan, based on facies trends and Lower Roan thickness in the Konkola Basin	Based on core logging; Sweeney et al. (1986) Max. water depth of Lower Roan mudstones estimated to be 250 m, based on approximate mean depth of East African Rift lakes

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Kundelungu	2000 - 3000	50 - 250	Inferred thickness based on apatite fission track analysis	> 2 km of stratigraphy removed since the Miocene (Daly et al., 2020); > 1km Kundelungu thickness in DRC (Batumike et al., 2007)
Nguba	420	10 – 500		Based on core logging
Mwashia	112	10 - 250		Based on core logging
Upper Roan	680 – 900	0 - 250	Up to 220 m of sediment added to account for missing base of Upper Roan	Based on core logging and correlation with RCB2
Lower Roan	120 - 500	0 - 30	Inferred based on sub- regional Lower Roan thickness ranges (< 500 m) and local stratigraphy at the Mufulira mine, water depths inferred from IT26	Binda & Mulgrew (1974); Wendorff (2005); AMIRA Report P544

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Kundelungu	2000 - 3000	50 - 250	Inferred thickness based on apatite fission track analysis; water depth inferred from Kundelungu facies in L83 and KADD04	> 2 km of stratigraphy removed since the Miocene (Daly et al., 2020); > 1km Kundelungu thickness in DRC (Batumike et al., 2007)
Nguba	400 - 500	10 - 500	Up to 100 m of Nguba sediment inferred, to account for missing top of Nguba	Based on core correlation with L83
Mwashia	122	10 - 250		Based on core logging
Upper Roan	276	0-30		Based on core logging
Lower Roan	224	0 - 30		Based on core logging

KADD04

Group	Thickness (m)	Palaeo water depth range	Comments	Sources for thickness estimates
Kundelungu	2000 - 3000	30 - 250	Inferred thickness based on apatite fission track analysis	> 2 km of stratigraphy removed since the Miocene (Daly et al., 2020); > 1km Kundelungu thickness in DRC (Batumike et al., 2007)
Nguba	165	10 - 500		Based on core logging

ZMSDD003

Group	Thickness (m)	Palaeo water depth range	Comments	Sources for thickness estimates
Kundelungu	2000 - 3000	10 - 250	Inferred thickness based on apatite fission track analysis	> 2 km of stratigraphy removed since the Miocene (Daly et al., 2020); > 1km Kundelungu thickness in DRC (Batumike et al., 2007)
Nguba	165 - 250	10 - 500	Up to 85 m of sediment added to account for erosion surface at top of Nguba	Based on core logging

CHLDD001

Group	Thickness (m)	Palaeo water depth range	Comments	Sources for thickness estimates
Kundelungu	2000 - 3000	50 - 250	Inferred thickness based on apatite fission track analysis; water depth inferred from Kundelungu facies in L83 and KADD04	> 2 km of stratigraphy removed since the Miocene (Daly et al., 2020); > 1km Kundelungu thickness in DRC (Batumike et al., 2007)
Nguba	400 - 500	30 - 250	Up to 178 m of Nguba sediment inferred to account for missing top of Nguba Lower water depth limit on account of ripple x-lam and laminites	Based on core correlation with L83
Mwashia	348	30 - 100		Based on core logging