

Table 2.--Stratigraphic correlation of the Tarim Basin, Xinjiang, Northwest China (After Chinese Academy of Geological Sciences, 1982; Institute of Geology, Academia Sinica, 1956; Kang, 1981; Lu, 1981; Wang and Liu, 1980; Wang and Tan, 1981; Wang, Zhang, Zhang and Tan, 1983; and Yi and Jiang, 1980).

Era	System	Series	Kashi-Yutian	Kalpin-Kuqa-Kuruktag	Remarks on Petroleum Geology Factors			
					oil and gas	oil		
Cenozoic	Quaternary	Holocene	Eolian, lacustrine, alluvial, and diluvial deposits of detrital sediments. Locally evaporites. 150 m.		Source rock	Reservoir rock *	Cap rock	
		Pleistocene	Desert sand and terrace gravel, glacial till and outwash, and eolian loess. 10-3,000 m.					
	Tertiary	Pliocene	Artux Fm. Ss. and mudstone. 220-3,400 m.	Kuqa Fm. Sta. ss., cgl. and mudstone. 300-2,900 m.				
			Pakabulak Fm. Mudstone and ss. 210-3,065 m.	Kangcun Fm. Ss. and mudstone, with cgl., sts., and claystone. 120-1,760 m.	♦	Sandstone Porosity, 5-25 (max. 28).	Claystone and mudstone	
		Miocene	Anjuan Fm. Mudstone and ss. 490-2,140 m.	Jidike Fm. Mudstone, sts., and ss. 333-1,133 m.	♦	Mudstone	Sandstone Porosity, 5-25 (max. 28). Permeability (md), 1-200 (max. 1,820).	Mudstone, and gypsum and salt beds.
			Keluoziyi Fm. Mudstone and ss. with gypsum beds. 280-4,500m					
	Oligocene		Suweiya Fm. Ss. and mudstone with gypsum and salt beds. 30-570 m.					
	Eocene	Kashi Group (maximum 1,500 m).		Kumugeliemu Group (maximum 940 m).		Mudstone, bioclastic limestone and limestone of the Kashi Group and the Yengisar Group. 200-600 m.	Sandstone and conglomerate of the Kumugeliemu Group and the Kezileisu Group. Porosity: Eugene rock, 1-23 (max. 34). Upper Cretaceous rock, 6-19 (max. 22). Lower Cretaceous rock, 5-16 (max. 17).	Gypsum beds and mudstone of the Kashi Group and the Yingjisha Group.
		Bashibulake Fm. Mudstone and ss. 340-430 m.	Xiakuzibai Fm. Ss. and mudstone.					
		Wulagen Fm. Mudstone and ls. with gypsum beds. 20-50 m.						
Kalataer Fm. Ls. and mudstone with gypsum beds. 38-135 m.								
Paleocene	Qimugen Fm. Mudstone with ls. and gypsum beds. 30-150 m.	Talake Fm. Gypsum beds with ls., mudstone, ss., and cgl.						
	Aertashi Fm. Gypsum beds with ls. 40-50 m.							
Mesozoic	Cretaceous	Yengisar Group (maximum 1,560 m).		Bashijiqike Fm. Ss. and cgl. 62-215 m.		Permeability (md): Eugene rock, 1-11 (max. 840). Upper Cretaceous rock, 6-500 (max. 1700). Lower Cretaceous rock, <1-90 (max. 1108).		
		Upper Cretaceous	Tuyiluohe Fm. Mudstone with gypsum beds. 47 m.					
			Yigeziya Fm. Ls. Wuyitake Fm. Mudstone. 70 m. Kukebai Fm. Mudstone with gypsum beds. 120 m.					
		Lower Cretaceous	Kezileisu Group. Ss. and cgl. 220-890 m.				Baxigai Fm. Ss. 172-410 m. Shushandong Fm. Mudstone and ss. 890-1,150 m. Yageliemu Fm. Cgl. and ss. 27-300 m.	
	Jurassic		Upper Jurassic	Kuzigongsu Fm. Ss. and cgl. 430 m. Taerga Fm. Ss. and mudstone. 533 m.	Kalaza Fm. Cgl. and ss. 2-92 m. Qigu Fm. Mudstone. 50-406 m.	Mudstone, sh., marl and oil sh. 200-600 m.	Sandstone and conglomerate of the Kezileisu, Yangxia and Ahe Formations. Porosity: Lower and Middle Jurassic rock, 5-25 (max. 28). Permeability (md): Lower and Middle Jurassic rock, <1-5 (max. 337).	
		Middle Jurassic	Yengye Fm. Sh. and ss. with coal beds 1,030 m.	Qiketai Fm. Mudstone, marl and oil-sh. 0-178 m. Kezileisu (Kezileidier) Fm. Mudstone sh. and ss. with coal beds. 133-874 m. Yangxia (Yengisar) Fm. Ss. with marl, mudstone and coal beds. 175-697 m. Ahe Fm. Cgl. and ss. 100-518 m.				
		Lower Jurassic						
	Triassic	Upper Triassic	Kangsu Fm. Ss., sh., coal, and cgl. 1,500 m.	Xisoquangou Group. Teliqike Fm. Cgl., ss., and claystone with coal beds. 71-487 m. Huangshanjie Fm. Mudstone, marl, sh., and ss. 10-675 m.	Sh., marl, and mudstone, 200-400 m.			
		Middle Triassic	Shalitashi Fm. Cgl. with ss. and thin coal beds. 1,314 m.	Karamay Fm. Cgl. and ss. 200-890 m.				
		Lower Triassic		Ehuobulake Group. Cgl. and conglomeratic ss. 145-532 m.				
Paleozoic	Upper Permian	Deliyaer Fm. Ss. and sts. with conglomeratic ss. 140-430 m.	Bilongleibaoguzi (Dalongkou) Group. Sh. and ss. with chert and ls. 400 m.	Shale and ls. of the Kalundaer Fm. 50-300 m.	Sandstone, conglomerate, bioherm, and cavernous limestone and dolomite. Porosity of Permian sandstone and conglomerate 2-13 (max. 17). Permeability (md) of Permian sandstone and conglomerate <1 (max. 246).	Shale and gypsum beds.		
		Kalundaer Fm. Mudstone and ss. with ls. and basalt. 366-1,300 m.	Kalundaer Fm. Ss. and sh. with marl, ls. and thin coal beds. 300-400 m.					
		Balikelike Fm. Basalt with mudstone and ls. 185 m. Kezilliqiman Fm. Mudstone, ss. and sts. 190 m.	Balikelike Fm. Ls. with sh. and claystone. 150-200 m.					
	Carboniferous	Upper Carboniferous	Tahaqi Fm. Ls. 169-700 m. Azigun Fm. Ls. with detrital sedimentary rocks. 74-140 m. Kalawuyi Fm. Ls. and mudstone with ss. 113-160 m.	Kangkalin Fm. Ls. with mudstone. 1,915 m. Kaladaban Fm. Ss. and sh. with conglomeratic ss. 600 m. Bigentawu Group. Ls. and ss. 325 m.	Bioclastic limestone, mudstone and shale 150-500 m.			
		Lower Carboniferous	Huohailafu Fm. Ls., sh., sts., and ss. 818 m.	Nugusibulake Group. Ls., mudstone and ss. with gypsum beds and cgl. 2,135 m.				
	Devonian	Upper Devonian	Undifferentiated marine deposits chiefly of ls. dol., and sh. 60-1,000 m.	Kezileitage Fm. Ss. and sts. 250 m. Yimugangtau Fm. Marl and sts. with ss. 350 m.				
		Middle Devonian		Tataiertage Fm. Sts., sh., slate and ss. 750 m.	Shale, 500 m.			
	Lower Permian	Silurian	Undifferentiated Cambrian, Ordovician, and Silurian marine sedimentary sequences of carbonate rocks, graywacke, phyllite and cgl. with slate, schist, and volc. rocks. More than 4,200 m.	Kalpin Fm. Ss., sh., and mudstone. 440-2,200 m.				
				Yinggan Fm. Mudstone with sts. 34 m. Qilang Fm. Sts. and marl. 160 m. Kanling Fm. Ls. and marl. 17 m.				
		Ordovician	Upper Ordovician	Saergen Fm. Sh. with ls. 14 m.	Limestone and shale 410 m.			
Lower Ordovician			Qiluitage Group. Ls., marl and dol. 290-600 m.					
Cambrian		Upper Cambrian	Awatage Fm. Ls., mudstone and sts. with dolomitic ls. 143 m.					
		Middle Cambrian	Shayilike Fm. Ls. 100 m. Wusongger Fm. Ls. with sh., sts. and ss. 115 m.		Shale and asphaltene limestone 150-200 m.			
		Lower Cambrian	Xisoerbulake Fm. Ls. and dol. with asphaltene and phosphalite. 183 m.					
Proterozoic	Upper Sinian	Saitus Group. Undifferentiated dolomites, limestones, shale and sandstone with slate, tuff and marl. 800 m.	Kuruktag Group.		Stromatolitic dolomite and limestone 500 m.			
			Hangeerqianke Fm. Tillite with varve clay beds. 400 m. Shuiquan Fm. Ls., sh., and ss. 110 m. Yukengnu Fm. Slate and sts. with sh. and marl. 580 m.					
			Zamokert Fm. Ss., sts., and sh. with cgl. 770 m. Terusaiken Fm. Tillite, mudstone, sts. slate, qtz., cgl. with ls., siltite and pyroclastic rocks. 1,760 m.					
			Aleitonggou Fm. Slate, ss., qtz., volc. rocks with cgl. 580 m.					
		Zhaohubai Fm. Sh. and slate. 340 m. Halytal Fm. Tillite, ss., sts., tuff, volc. rocks and breccia. 1,480 m.						
Metamorphic complexes of sedimentary rocks and plutonic and volcanic rocks.								

Fm. Formation; ss. sandstone; cgl. conglomerate; qtz. quartzite; sh. shale; ls. limestone; dol. dolomite; sts. siltstone. ---, conformable; - - - - - , disconformable; ~~~~~, unconformable.

\* Porosity and permeability of individual formations are not defined. Carboniferous physical parameters are not given (Kang, 1981, table 6).