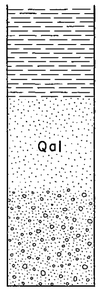
GEOLOGIC COLUMN AND UNIT DESCRIPTION

AGE	ROCK UNIT	LITHOLOGY; THICKNESS WHERE KNOWN	UNIT DESCRIPTION	ECONOMIC VALUE
QUADERNARY — Recent	Alluvium 	Mud, clay, sand and gravel; thickness less than 10 meters	Alluvium, consisting of mud, clay, sand and gravel of Recent age, occupies the present river beds and other depressions such as playas and swamps. The total thickness may attain 10 meters. In places, where the wind erosion is advanced, the Alluvium in the depressions may be quickly removed, exposing the underlayers. Ta-ma-su P'ao-tzu [大麻鹼泡子] or Tabusu-nor is a well known bitter-lake, situated in the northeastern quarter of the map area. It is an oval basin, 10 km by 7 km, and is walled by a steep cliff rising about 20 m from the lake level. The cliff consists of interstratified sandy loess and clay of the Diluvium, and the basin is filled with alluvial mud and aeolian sand. No stream pours into it, and the water level shows a wide seasonal fluctuation. In summer, natural salt is precipitated from the lake water due to evaporation, and in winter its mud flat yields natural soda efflorescence. With regard to the origin of the lake, there are two different theories among Japanese geologists because of its peculiar geomorphology, i.e., the volcanic lake theory of Y. OKAMURA (1917) and the structural lake theory of K. NIINOMY (1928). However, the compiler thinks that it is a typical playa-lake of an uplifted district now entering the youthful stage of the erosion cycle under the arid climate, because the wall of the lake is wind-eroded in all directions away from the center, resulting in the present circular or amphitheater form. Lakes of this type are quite common in the vast East Mongolian plain.	The natural soda deposit of Ta-ma-su P'ao-tzu was worked by a Chinese company (1914-1920), under a mining contract with the local Mongolian chieftain at that time. Total outputs from 1914 to 1919 were estimated at 30,000 tons a year. The soda industry of the region came to an end when the import of soda from foreign countries began.
Pleistocene	Diluvium 	Sand, loess and clay; thickness more than 100 m	Diluvium (Qdl) consists of interstratified sandy loess and clay, mainly of lacustrine origin. The total thickness may be more than 100 m (refer to the bore-hole record). It constitutes the main body of the Mongolian Quaternary. The basal part grades into the fluviatile phase (Qdg) consisting of gravel and coarse sand, which does not occur within the map area.	

(Column not drawn to scale)

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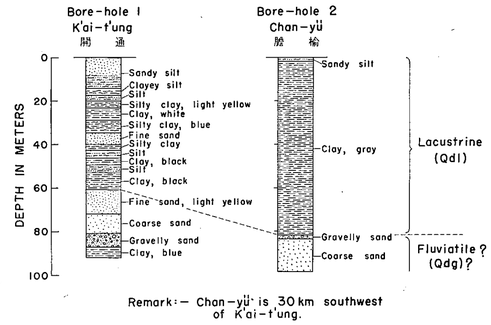
Record of bore-holes undertaken for exploration of Pleistocene deposits in the K'ai-t'ung area



Remark:— Chan-yü is 30 km southwest of K'ai-t'ung.