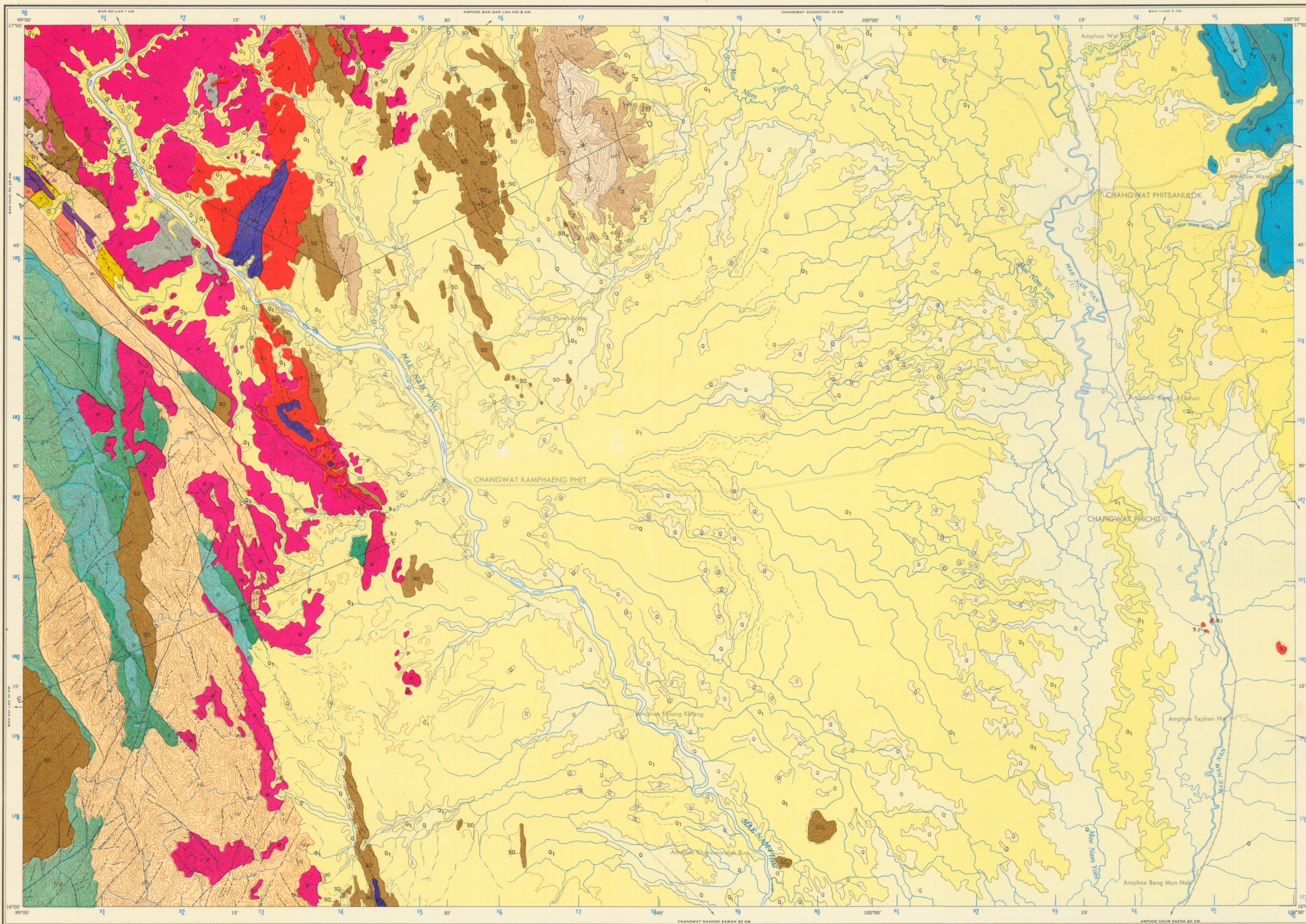




CHANGWAT PHITSANULOK 1:250,000

GEOLOGICAL MAP OF THAILAND, 1:250,000

REFER TO THIS MAP AS: NE 47-15



FORMATION		GROUP	HOLOCENE	QUATERNARY	CENOZOIC	
<div>0</div>	Alluvial sand, silt, clay of Recent flood plain and lacustrine deposits.					
<div>Q₁</div>	Terrace gravel, sand, silt, laterite and lateritic soil.		PLEISTOCENE			
<div>7</div>	Moderately consolidated conglomerate, poorly bedded sandstone, and mudstone with Neogene fossil leaves.	LANSANG GRAVELS	TERTIARY			
UNCONFORMITY						
<div>4</div>	Reddish-brown mudstone, shale and sandstone; also intercalation of fine grained sandstone and shale.	SAO KHUA	KHORAT	JURASSIC		
<div>3</div>	Dominantly white color quartz sandstone with common cross bedding; rarer siltstone and shale.	PHRA WIHAN				MIDDLE
<div>2</div>	Brown to reddish-brown sandstone, red shale, red and green mudstone also conglomerate in the lower part (base not exposed).	PHU KRADUNG				LOWER
<div>3</div>	Mainly brown sandstone quartz sandstone, reddish brown shale and mudstone; also basal conglomerate containing rhyolite and quartz pebbles.	KHAO DAENG	LOWER JURASSIC ?		MESOZOIC	
<div>3</div>	Volcanic complexes: rhyolite and andesite flows, tuff, minor agglomerate and dike rocks.	KHAO KHAENG VOLCANICS	LOWER JURASSIC UPPER TRIASSIC			
UNCONFORMITY						
<div>3</div>	Grey shale (with <i>Dacrydium sumatrense</i>), tuffaceous sandstone at lower part, and grey, unfossiliferous limestone at top.	THA CHANG TAI	LAMPANG	TRIASSIC		
<div>3</div>	Mainly red conglomerates, red sandstone; less common mudstone and thin bedded limestone in higher part.	UM YOM				CARNIAN LADINIAN ANISIAN SKYTHIAN
UNCONFORMITY						
<div>3</div>	Light grey, massive and bedded limestones (with fusulines, rugose coral); tuffaceous sandstone, siltstone, argillite; also red sandstone.	MAE THO	MIDDLE LOWER	PERMIAN		
UNCONFORMITY						
<div>3</div>	Mainly rhyolitic agglomerate; also minor tuff, breccia and volcanic conglomerate (with fragments of limestone).	KHAO LUANG PYROCLASTICS	MAE THA	CARBONIFEROUS		
<div>2</div>	Greenish grey shale, sandstone and conglomerate; thin graded into red sandstone, quartz conglomerate, quartz sandstone, red shale, brownish-grey shale in higher part.	LAN HOI				
<div>3</div>	Mainly andesitic agglomerate; also minor tuff, breccia, and volcanic conglomerate.	KHAO KHIMA PYROCLASTICS				
UNCONFORMITY						
<div>3</div>	Phyllite, phyllitic tuff, quartz - feldspathic tuff, argillites and greywackes, and marbles (SD ₁)	KHAO KHEO	PHRAN KRATAI	DEVONIAN to SILURIAN		
<div>3</div>	Mainly white - grey and massive to poorly bedded marbles - (SD ₁)	KHAO SAWANG MARBLES				
<div>3</div>	Bedded to well bedded cherts with thin interbedded phyllitic tuff (SD ₂)	KHANU CHERTS				
UNCONFORMITY						
<div>3</div>	Mainly well bedded - well bedded and massive argillaceous limestone; less common greenish - grey shale and sandstone.	THUNG SONG	ORDOVICIAN		PALEOZOIC	
<div>3</div>	Bedded and massive quartz sandstone, arkosic sandstone	PONG NAM RON SANDSTONE	CAMBRIAN			
<div>3</div>	Banded quartzite, quartz - mica schist with also green schist		? CAMBRIAN			
UNCONFORMITY						
<div>3</div>	Metamorphic complexes: augen gneiss, granite gneiss, biotite - microcline gneiss, quartz - feldspathic gneiss, biotite schist, banded quartzite, calc silicate rocks and marbles; commonly well layered, laminated and bedded.	LANSANG GNEISSIC COMPLEXES	PRECAMBRIAN			
<div>3</div>	Granites, granodiorite, diorite; minor undifferentiated andesite, rhyolite and quartz - feldspathic dikes in marginal also well limited, feldspar rich, muscovite - hornblende granite.	TAK GRANITES	MESOZOIC			
<div>3</div>	Intrusive complexes: mainly granodiorite, diorite and hybrid rocks.	HUAI MAI NGAM INTRUSIVES	? CARBONIFEROUS			

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