

GEOLOGICAL MAP OF PROVINCE - 5, NEPAL

SUDURPASCHIM PROVINCE

KARNALI PROVINCE

GANDAKI PROVINCE

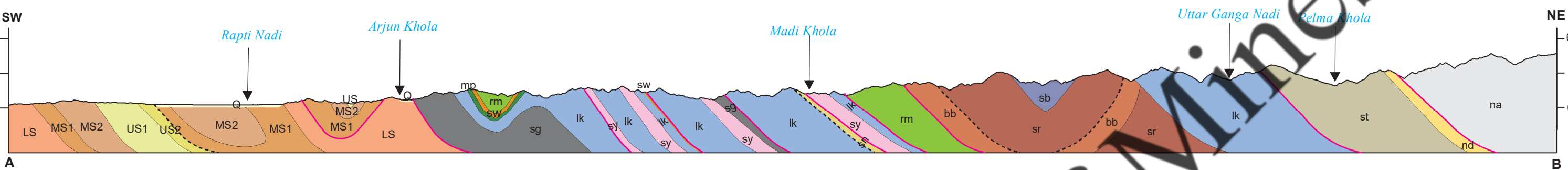
INDIA

INDIA

SCALE: 1:350,000



Geological Section Along A-B



LEGEND	
SURFICIAL DEPOSITS (Quaternary-Recent)	
Q	Quaternary: Alluvium, boulder, gravel, sand, silt and clay.
SIWALIK GROUP (Middle Miocene-Lower Pleistocene)	
US ₃	Upper Upper Siwalik: Boulder, cobble, conglomerates with minor yellow, grey mud and silt, sand bands and lenses in the conglomerates.
US ₂	Lower Upper Siwalik: Pebbly conglomerate, yellow and grey mud with minor grey sand.
US	Upper Siwalik: Undifferentiated.
MS ₃	Upper Middle Siwalik: Medium to coarse-grained sandstones, pebbly sandstones with siltstones and mudstones with relic of hard sandstones. Turtle limb is present in the sandstones.
MS ₂	Lower Middle Siwalik: Medium, fine to medium grained sandstones with interbeds of siltstones and mudstones. Coaly materials and plant fossils are present.
MS ₁	Lower Siwalik: Fine grained sandstones with interbeds of purple or red colored mudstones, shales, siltstones and occasional marl.
SURKHET GROUP (Cretaceous-Oligocene)	
SU	Suntar Formation: Fine to medium grained, greenish grey sandstones and purple shales with intercalations of green siltstone shales.
SW	Swat Formation: Grey to dark grey carbonaceous clamped shales with bands and lenses of fine grained fossiliferous limestones (Nummulites sp., Assilina sp., etc.) and ferruginous quartzites at the base.
MP	Melpani Formation: White grey, ferruginous quartzitic sandstones and grey to dark grey shales with basal conglomerates.
CH	Charchare Formation: Olive green sandstones, siltstones and conglomerates at the upper portion.
MIDLAND GROUP (Upper Precambrian-Late Paleozoic)	
Laharpata Sub-Group	
LK	Laharpata Formation: Fine grained, grey limestones and dolomites with thin intercalations of black to grey shales. At Places white pink dolomitic limestones, purple and green shales at the top. Algal structure with stromatolites are present.
SY	Syngta Formation: White to milky white, pale orange, pinkish or purplish calcareous quartzites and dolomitic limestones with dark grey and purple shales at base.
SG	Sangam Formation: Black, dark grey to greenish grey siltstone pencil structured shales with thin intercalation of limestones and white fine grained cross-bedded quartzites at base.
GL	Galyang Formation: Dark grey slates finely intercalated with thin grey calcareous slates and sandstones. Dark grey to bluish grey fine grained limestones and dolomitic limestones of various sizes within the slates are common. Banded Carbonates: grey siliceous dolomites.
DALEKH Sub-Group	
RM	Ranimita Formation: Grey to greenish grey, gritty chlorite phyllites and phyllitic quartzites metasediments and conglomerate beds with massive quartzites in the upper and lower parts. Basic intrusions are frequent.
KA	Kushma Formation: White to grey, fine to medium grained, massive at places ripple marked quartzites intercalated with green chlorite phyllites.
Pokhara Sub-Group	
ST	Seti Formation: Grey to greenish grey, gritty chlorite-muscovite sandstones with conglomerates and white massive quartzites in the upper parts. Basic intrusions are common.
GH	Ghan Pokhara Formation: Black carbonaceous phyllites and shales, grey to greenish shales with limestone bands.
ND	Naudanda Formation: Fine to medium grained white quartzites with fossil marks and thin intercalations of green chlorite phyllites.
JALAJALA GROUP (Precambrian)	
SB	Surbang Formation: Grey to brown or fine limestones interbedded with calcareous schists, calcareous quartzites and biotite-quartzites.
SI	Siari Formation: Garniferous quartz biotite schists, garniferous chlorite-quartz schists, muscovite-biotite schists, calcareous schists, massive quartzites with rare graphitic schists, intrusions of basic rocks and granites are found. Barabanghi-quartz-mica-schist interbedded with calcareous quartzites and thin laminated orange.
NAWAKOT GROUP	
NA	Precambrian to Paleozoic: Mainly shallow marine sediments; lower part dominantly clastic (Phyllites, sandstones, quartzites and calcareous sandstones). Stromatolitic limestones and black slates occur in the upper part. Basic sills and dykes are present.
HIGHER HIMALAYAN CRYSTALLINES	
GR	Precambrian high grade metamorphic rocks comprising gneisses, quartzites and marbles. (Gneisses and marbles are present predominantly in the upper part.)
TR	Tertiary (Miocene): Two mica leucocratic granites with tourmaline.
SYMBOLS	
gr	granites
bs	Basic rocks

PHYSIOGRAPHIC FEATURES	
□	District Headquarter
□	Province Headquarter (Temporary)
▲	Peaks with Height in Meter
---	Province Boundary
---	International Boundary
---	Highway, Feeder Road, Other Road
---	Stream, River
▲	Spot Height in Meter
□	Temple, Town, Village

STRUCTURE	
---	Geological Contact
---	Alluvium Boundary
---	Thrust
---	Fault
---	Inferred Contact
---	Unconformity
---	Anticlinal Axis
---	Synclinal Axis
---	Overturned
---	Overturned Anticline
---	Overturned Syncline

ATTITUDE OF BEDDING	
+	0°
+	1°-19°
+	20°-39°
+	40°-59°
+	70°-89°
+	90°

MINES	
⊗	Coal
⊗	Iron
⊗	Limestone

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Horizontal Datum
 Spheroid: Everest 1830
 Projection: Modified Universal Transverse Mercator
 Origin: Longitude 84° East, Latitude 0° North
 False co-ordinates of origin: 500 000m Easting
 0m Northing
 Scale factor at Central Meridian: 0.9999

Data Sources:
 This map is compiled from the published "Geological map of Nepal (1:1,000,000)", "Geological Map of Western, Central, Mid Western & Far Western Region of Nepal (1:250,000)" by Department of Mines & Geology (DMG) and "Geological Map of Petroleum Exploration Block no. 2, 3, 4 and 5 (1:250,000)" by Petroleum Exploration Promotion Project (PEPP), Nepal.

Topographical Base:
 1:25,000 & 1:50,000 Map of GoN, Survey Department, Kathmandu, Nepal

