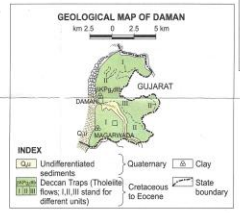
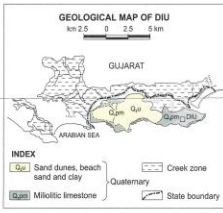
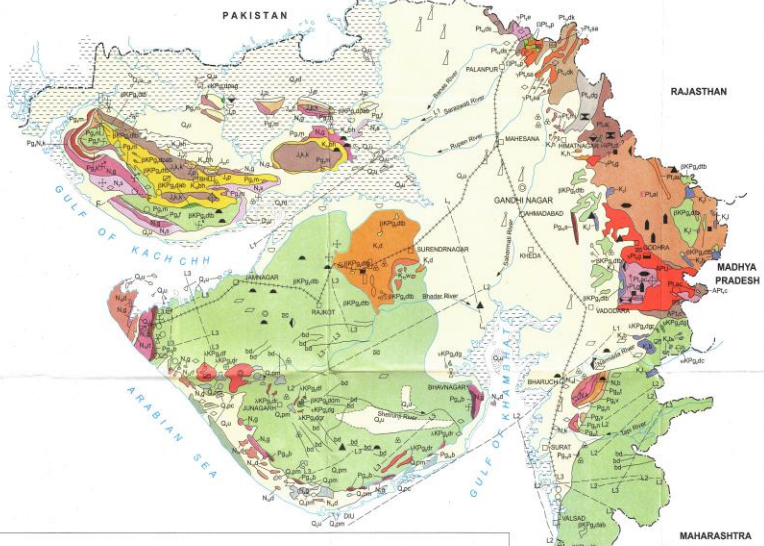




GEOLOGICAL AND MINERAL MAP OF GUJARAT, DAMAN & DIU

SCALE
km 20 10 0 20 40 60



SEDIMENTARY AND METAMORPHIC ROCKS		IGNEOUS ROCKS	
QUATERNARY	Holocene Q _{u1} Q _{u2}	Undifferentiated alluvial and fluvial sediments / Rann deposits	
NEOGENE	Pleistocene Q _{2m} Q _{2pl}	Chaja Formation / Porbandar / Milotite Formation	
	Pliocene N ₃	Sandhan Formation	
	Mio-Pliocene N ₂ N ₁	Dwarika / Jhagadia Formation	
PALAEOGENE	Miocene N ₁ N ₂	Gaj / Kand Formation / Babaguru Formation	
	Oligocene to Miocene P ₁ N ₁	Khari Nadi Formation	
	Oligocene P ₂ N ₁	Mariyara Fort Formation	
	Eocene to Oligocene P ₃ N ₁	Tarkeshwar Formation	
	Eocene P ₄ N ₁ P ₅ N ₁	Fula Formation / Narmada Formation / Kalki Nadi Formation / Vagadholi Formation	
Cretaceous to Eocene	P ₆ N ₁ P ₇ N ₁	Bhalia / Salod Formation	
	P ₈ N ₁ P ₉ N ₁	Matanmadh Formation	
DECCAN TRAPS		VOLCANIC ROCKS (with intermediate and plutonic phases)	
Upper Cretaceous	L ₁ L ₂ L ₃	Lameta / Bagh Formation	Amba Dongar carbonatite / Gabbro
Lower to Middle Cretaceous	K ₁ K ₂ K ₃ K ₄ K ₅	Bhu Formation / Washresh Group	Rhyolite / Felsite / Granophyre / Basic dyke / sill / sheet / Oriented Diorite - monzonite
Lower Cretaceous	K ₆ K ₇ K ₈ K ₉	Dhrangashtra Group / Himmatnagar Formation	Tholeiitic basalt flows with intertrappean beds / Alkali basalt flows / Plugs of alkali gabbro / alkali basalt
Upper Jurassic to Lower Cretaceous	J ₁ J ₂ J ₃ J ₄	Katrol (Juran) Formation	
Middle to Upper Jurassic	J ₅ J ₆	Chari (Jumara) Formation	
Middle Jurassic	J ₇	Pachdham (Jhurto) Formation	
Palaeoproterozoic to Mesoproterozoic	P ₁₀ P ₁₁ P ₁₂	Sirohi Group / Kumbhalgarh Group	Mar (Melaon) Granite / Eimpura Granite Gneiss
	P ₁₃ P ₁₄	Gogunda Group / Champaner Group	Godhra Granite / Genders - Ambaj Granite
	P ₁₅ P ₁₆	Lunawada Group / Jharol Group	Phulad Ophiolite Suite / Dadhalla Ultramafic Suite
	P ₁₇ P ₁₈	Udaipur Group	
Archaean to Palaeoproterozoic	P ₁₉ P ₂₀ P ₂₁	Pra - Champaner / Pra - Lunawada gneisses	

MINERALS		
Agate	Feldspar	Chrys
Barite	Fluorite	Petroleum
Bauxite	Fuller's earth	Phosphorite
Bentonite	Glass sand	Poly-metallic base metal
Beryl	Gold	Quartz
Building stone	Graphite	Salt (Brine)
Calcite	Gypsum	Siderite
Chalk	Lignite	Talc (soapstone)
Clay	Limestone	Tin - tungsten
Coal	Marble	Vermiculite
Copper	Mica	Wollastonite
Diatomite	Nickel / PGE	
Dolomite		

SYMBOLS	
L1 - L1 Major Lineament (>300 km long)	International boundary
L2 - L2 Intermediate Lineament (100-300 km long)	State boundary
L3 - L3 Minor Lineament (<100 km long)	Railway
F - Fault	River
Creek zone	State Capital

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This map incorporates surface and interpolated subsurface geological data and known mineral occurrences up to year 1988. The mineral contacts in sand-covered areas are interpolated.

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