

C O N T E N T S

	<u>PAGE</u>
<u>Chapter I : INTRODUCTION</u>	1
General	1
Location	3
Topography	6
Drainage	6
Climate	7
Flora	9
Fauna	10
Cultivation	10
Habitation	10
Scope of the present work	11
Brief geology	13
 <u>Chapter II : BACKGROUND INFORMATION</u>	 15
Himalaya in general	15
Origin and evolution	19
Previous work	26
Outline of geology of Himalaya	28
Previous work in Nepal Himalaya	36
Previous work in the study area and neighbourhood	 70
 <u>Chapter III : GEOLOGICAL SETTING</u>	 78
General	78
Main lithological types	83
Slates (purple, grey and green coloured)	 85

	<u>PAGE</u>
Slaty phyllites	85
Grey and green phyllites	86
Quartzose phyllites	86
Gritty quartzose phyllites	88
Conglomerates	89
Micaceous quartzites	89
Massive quartzites	91
Impure feldspathic sandstones (graywacke)	91
Spilitic diabase and basalts	94
Altered tuffs	94
Crystalline limestones	95
Dolomites	95
Quartz veins	95
Distribution and field characters	95
Sumsa Formation	95
Phalebas Thrust Zone	100
Kusma Quartzites	103
Balewa Formation	110
 <u>Chapter IV : STRATIGRAPHY AND DEPOSITIONAL HISTORY</u>	 118
General	118
Stratigraphy and age	121
Depositional history	127
 <u>Chapter V : STRUCTURAL GEOLOGY</u>	 135
General	135

	<u>PAGE</u>
Structural pattern	136
Structural characters of sub-division - I	137
Structural characters of sub-division - II	139
Structural characters of sub-division - III	142
Thrust and faults	142
Structural analysis	144
Deformational history	166
Discussion	174
 <u>Chapter VI : PETROGRAPHY</u>	 177
General	177
Kusma Quartzites	178
Massive quartzite	178
Micaceous quartzite	179
Crystalline limestone	181
Balewa Formation	181
Gritty quartzose phyllite	183
Quartzose phyllite	185
Phyllite	185
Sumsa Formation	185
Grey slate and slaty phyllite	186
Impure feldspathic sandstone (graywacke)	186
Purple slate and dolomite	187

	<u>PAGE</u>
<u>Chapter VII : SPILITIC ROCKS OF KUSMA-PHALEBAS</u> <u>AREA</u>	190
General	190
Mode of occurrence	192
Nature and petrography	193
Spilitic diabase	195
Spilitic basalt	198
Spilitic tuffs	198
Mineralogy	201
Petrochemistry	209
Discussion	214
<u>Chapter VIII : GEOMORPHOLOGY</u>	219
General	219
Salient physiographic features	221
Drainage studies	224
Longitudinal profiles	231
Cross profiles	235
Drainage channel analysis and comparison of morphometric parameters	238
Geological control on drainage	244
Slope studies	245
Slope evolution	251
Geomorphic processes	254
Terraced gravel deposits	255
Kali Gandaki consolidated gravels	255
Criteria for terrace classification	258

	<u>PAGE</u>
Distribution and morphology of terraces	268
Origin of gravel beds	274
Nature of gravel beds	282
 <u>Chapter IX : RESUME</u>	 287
Geological framework	287
Structural characters	292
Spilites	294
Landforms	294
Drainage	296
Slope studies	297
Gravel deposits	298
Concluding remarks	302
 REFERENCES	 304