

CONTENTS

<u>CHAPTER NO.</u>		<u>PAGE NO.</u>
	ABBREVIATIONS	xiv
	PART I	
	<u>BACKGROUND INFORMATION</u>	
I	<u>INTRODUCTION</u>	1 - 17
	PURPOSE AND SCOPE	1
	GEOGRAPHIC LOCATION AND SALIENT FEATURES OF THE GULF	5
	ECOLOGICAL ASPECTS	8
	CLIMATE	8
	FLORA	8
	FAUNA	12
	COMMUNICATION	13
	SOCIO-ECONOMIC ASPECTS	13
	METHODOLOGY	15
II	<u>PREVIOUS WORK</u>	18 - 25
	GENERAL	18
	TECTONIC ASPECTS	19
	GEOLOGY AND GEOMORPHOLOGY OF COASTAL AREAS	20
	OFF-SHORE INFORMATION	23
III	<u>GEOLOGICAL FRAMEWORK</u>	26 - 40
	REGIONAL GEOLOGICAL SET UP	26
	STRUCTURAL CONTROL OF GULF CONFIGURATION	30
	STRATIGRAPHIC SET UP OF THE GULF	37

CHAPTER NO.PAGE NO.

PART II

ONSHORE STUDIES

IV	<u>COASTAL GEOLOGY</u>	41 - 48
	GENERAL	41
	SAURASHTRA BLOCK	43
	BHAL BLOCK	46
	MAINLAND BLOCK	47
V	<u>GEOMORPHOLOGY: COASTAL LANDSCAPE AND LANDFORMS</u>	49 - 102
	GENERAL	49
	SAURASHTRA BLOCK	51
	BHAL BLOCK	76
	MAINLAND BLOCK	80
	PIRAM ISLAND	98
VI	<u>RIVERS AND PONDS</u>	103 - 125
	GENERAL	103
	RIVERS	105
	OVERALL DRAINAGE SET UP	105
	CHARACTERISTICS OF THE COASTAL DRAINAGE	110
	PONDS	116
	CATEGORISATION OF PONDS	117
	ROLE OF PONDS	124

<u>CHAPTER NO.</u>		<u>PAGE NO.</u>
VII	<u>HYDROGEOLOGICAL ASPECTS</u>	126 - 169
	GENERAL	126
	HYDROGEOLOGICAL CATEGORISATION	127
	BLOCKWISE DESCRIPTION	132
	BLOCK-I	132
	BLOCK-II	135
	BLOCK-III	138
	BLOCK-IV	140
	BLOCK-V	142
	CHEMICAL QUALITY	146
	SOME ASPECTS OF MANAGEMENT	158
VIII	<u>COASTAL DEPOSITS</u>	170 - 205
	TIDAL MUDFLAT DEPOSITS	170
	GRAIN SIZE ANALYSIS	171
	X-RAY ANALYSIS (BULK MINERALOGY)	178
	BULK CHEMISTRY	183
	CLAY MINERALOGY	193
	BEACH DEPOSITS	200
	SAURASHTRA COAST	201
	MAINLAND COAST	203
	PART-III	
	<u>OFF-SHORE STUDIES</u>	
IX	<u>OFF-SHORE PROCESSES</u>	206 - 237
	GENERAL	206
	TIDES AND TIDAL CURRENTS	207

<u>CHAPTER NO.</u>		<u>PAGE NO.</u>
	TIDAL CURRENTS VIS-A-VIS SUSPENDED SEDIMENTS	218
	CAUSES OF HIGH TIDE IN THE GULF	225
	WAVES	226
	BATHYMETRY	229
X	<u>NATURE OF TIDAL SEDIMENTS</u>	238 - 252
	GENERAL	238
	TOTAL BULK WEIGHT	239
	GRAIN SIZE	240
	X-RAY DIFFRACTION	242
	BULK MINERALOGY	242
	CLAY MINERALOGY	249
	PART-IV	
	<u>CONCLUSIONS</u>	
XI	<u>MAIN OBSERVATIONS AND FINDINGS</u>	253 - 265
	GENERAL	253
	ROLE OF TECTONISM AND EUSTASY	256
	TIDES, TIDAL CURRENTS AND BATHYMETRY	259
	METEOROLOGY	263
	CONCLUDING REMARKS	264
XII	<u>RESUME</u>	266-276
	<u>APPENDIX</u>	277
	<u>ACKNOWLEDGEMENT</u>	278-281
	<u>REFERENCES</u>	282-289