

LIST OF FIGURES

<u>Serial Number</u>	<u>Figure</u>	<u>Description</u>	<u>Page</u>
1	1.1	Index map of the study area	5
2	1.2	Communication map of the study area	8
3	2.1	Regional geological set-up	26
4	2.2	Geological map of the Heran river basin	30
5	3.1	Regional tectonic map	48
6	3.2	Structural map of the Heran river basin	54
7	3.3	Lineament map of the Heran river basin	65
8	4.1	Distribution of Geomorphic units in the study area	75
9	4.2	Palaeoriver channel of Heran river and river capturing phenomena	88
10	4.3	Longitudinal profiles of Heran river and its tributaries	100
11	4.4	Drainage map of the Heran river basin	101
12	4.5	Slope (Iso-Tangent) map of the Heran river basin	104
13	5.1	Seasonal variation of temperature and evaporation	117
14	5.2	Weighted area precipitation analysis of the Heran river basin	123
15	6.1	Distribution of semi-confined aquifers in the study area	143
16	6.2	Occurrence of spring conditions in the study area	147
17	6.3	Observation wells in the study area	151
18	6.4	Reduced water level contour map.	154
19	6.5	Relation between ground level and groundwater level	156
20	6.6	Direction of groundwater flow in the middle and lower Heran basin	158

<u>Serial Number</u>	<u>Figure</u>	<u>Description</u>	<u>Page</u>
21	6.7(a-c)	Seasonal water level fluctuations in the observation wells.	160-162
22	6.8	Pump test locations in the study area	167
23	6.9	Type curves for delayed drainage	168
24	7.1	Hydrogeological map of Gujarat and adjacent areas	176
25	7.2	Influence of radial drainage pattern on groundwater occurrence	200
26	7.3	Influence of fault trellis drainage pattern on groundwater occurrence	200
27	7.4	Electrical resistivity survey locations and geoelectric cross sections	206
28	7.5	Hydrogeological cross section between Karnet and Bihora	211
29	7.6	Hydrogeological cross section between Akoti and Malpur	212
30	7.7	Heran and hami river's cross sections	214
31	8.1	Iso TDS & CHLORIDE contour map	234
32	8.2	Piper's digram showing the chemical quality of groundwater in the Heran river basin	236
33	9.1	Hydrogeological categorisation of the Heran river basin.	253