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FIG. 1.1 - LOCATION MAP OF ASUNDI NALLA WATERSHED
FIG 1.2 - ACCESSIBILITY MAP OF ASUNDI NALLA WATERSHED
FIG. 1.4 - ANNUAL VARIATION OF RAINFALL.

MONTHS

RAINFALL (cm)

JAN  FEB  MAR  APRIL  MAY  JUNE  JULY  AUG  SEPT  OCT  NOV  DEC

AVERAGE 51.2 (cm)
FIG 1.5 - GEOLOGICAL MAP OF ASUNDI NALLA WATERSHED

[Diagram of a geological map showing different rock formations and symbols for geological features.]

LEGEND
- Pebbles (Alluvial Formation)
- Banded Iron Formations and Shale
- Greywacke
- Dip and Strike

Scale: 1:1,25,000

Directions: North Arrow

Distance: 0 2 4 6 Kilometers
Gravelly clay soils, moderately eroded.

Deep, well-drained, calcareous, clayey soils.

Calcareous, cracking clay soils.

Very deep, moderately well-drained, calcareous, cracking clayey soil, moderately eroded.
FIG 2.1 - TOPOGRAPHY OF ASUNDI NALLA WATERSHED
FIG 2.3 - CROSS SECTION ALONG LATITUDE
FIG 2.5 - SLOPE MAP OF ASUNDI NALLA WATERSHED

75°42' - 75°29'
14°35'

6 Kilometers

Symbol Slope class

Nearly level
Very gentle
Gentle Slope
Moderate Slope
Moderately Steep

SCALE: 1:25,000
0 2 4 6 Kilometers

N
Fig. 2.8 - CHANNEL GRADIENTS OF ANW

DISTANCE IN KMS

ELEVATION ABOVE MSL IN METERS
FIG 2.10 - SATELLITE IMAGE OF ASUNDI NALLA WATERSHED
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LEGEND
- Location of Bore Wells
- Villages

SCALE 1: 1,25,000

Kms
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Fig. 3.2 - Depth Vs yield (Hullatti tanda)

Fig. 3.3 - Depth Vs yield (Hullatti)

Fig. 3.4 - Depth Vs yield (Guddanveri)
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Fig. 3.9 - Depth Vs yield (Maidur)

Fig. 3.10 - Depth Vs yield (Kajjari)
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Fig. 3.30 - Depth Vs yield (Lakmojikop)

Fig. 3.31 - Depth Vs yield (Ramagondanhalli)
Fig. 3.38 - Depth Vs yield (Anur)
Fig. 3.39 - HISTOGRAM FOR DEPTH AND PERCENTAGE OF BORE WELLS

DEPTH IN METERS

PERCENTAGE OF BORE WELLS

28.43
12.42
12.09
11.11
10.46
8.17
5.56
3.59
1.96
1.31
0.65
0.65
0.31
0.08
0.02

30 25 20 15 10 5 0
0 10 20 30 40 50 60 70 80 90 100 110 120 130 140 150 160
Fig. 3.40 - PERCENTAGE OF BORE WELLS VS CASING

- 78% in the 0 - 10 metre range
- 19% in the 10 - 20 metre range
- 2% in the 20 - 30 metre range
- 1% in the 30 - 40 metre range
Fig. 3.41 - HISTOGRAM FOR YIELD AND PERCENTAGE OF BORE WELLS
FIG 3.42 - CONTOUR MAP FOR THE DEPTH OF BORE WELLS IN ANW

SCALE 1:1,25,000

Kilometers
FIG 3.43 - CONTOUR MAP FOR THE YIELD OF BORE WELLS IN ANW
SCALE 1:1,25,000

Kilometers

SCALE 1:1,25,000

Kilometers
FIG 3.44 - LOCATION OF BORE WELLS WITH THE LINEAMENT IN ASUNDI NALLA WATERSHED

LEGEND
- Lineament
- Location of Bore Wells
- Villages

SCALE 1: 1,25,000
0 2 4 6 Kms
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SCALE 1:1,25,000

Kilometers

Honnatti

Chetra

Asundi

Ranebennur

SCALE 1:1,25,000

2 0 2 4 6 Kilometers
FIG 3.57- Contour map of water level fluctuation (2002)
FIG 3.58 - WATER TABLE CONTOUR MAP (1976)

SCALE 1:1,25,000

Kilometers
FIG 3.62 - WATER TABLE CONTOUR MAP (1993)
Location of Groundwater Samples Collected
Fig. 4.1 - VARIATION DIAGRAM OF EC

Average EC = 741.35 micro mhos

Sample Nos

Fig. 4.2 - AREAL DISTRIBUTION OF ELECTRICAL CONDUCTIVITY
Fig. 4.5 - VARIATION DIAGRAM OF CALCIUM

Fig. 4.6 - AREAL DISTRIBUTION OF CALCIUM
Fig. 4.7 - VARIATION DIAGRAM OF MAGNESIUM

**VARIATION DIAGRAM OF MAGNESIUM**

Avg = 67.3 mg/l

Fig. 4.8 - AREAL DISTRIBUTION OF MAGNESIUM

**AREAL DISTRIBUTION OF MAGNESIUM**
Fig. 4.9 - VARIATION DIAGRAM OF SODIUM

Sample Nos

Avg = 228 mg/l

Fig. 4.10 - AREAL DISTRIBUTION OF SODIUM

SCALE 1:1,25,000
Fig. 4.13 - VARIATION DIAGRAM OF CHLORIDE

Avg = 308 mg/l

Fig. 4.14 - AREAL DISTRIBUTION OF CHLORIDE

SCALE 1:1,25,000
Fig. 4.15 - VARIATION DIAGRAM OF SULPHATE

SO4 (in mg/l)

Avg=166.1 mg/l

Sample Nos

FIG 4.16 - AREAL DISTRIBUTION OF SULPHATE

SCALE 1:1,25,000

Kilometers

FIG 4.16 - AREAL DISTRIBUTION OF SULPHATE

SCALE 1:1,25,000

Kilometers
Fig. 4.17 - VARIATION DIAGRAM OF BICARBONATE

Avg = 283.52 mg/l

Sample Nos

Fig. 4.18 - AREAL DISTRIBUTION OF BICARBONATE

SCALE 1:1,25,000

Kilometers
Fig. 4.19 - VARIATION DIAGRAM OF CARBONATE

Avg=14.97 mg/l

FIG 4.20 - AREAL DISTRIBUTION OF CARBONATE
FIG 4.21 - VARIATION DIAGRAM OF TDS

Avg = 1158 mg/l

FIG 4.22 - AREAL DISTRIBUTION OF TOTAL DISSOLVED SOLIDS
Fig. 4.23 - VARIATION DIAGRAM OF TOTAL HARDNESS

Avg = 480.6 mg/l

Fig. 4.24 - AREAL DISTRIBUTION OF TOTAL HARDNESS
FIG. 4.25 - PIPER'S TRIPLEAR DIAGRAM OF ANW.

\[ \text{CO}_3^{2-} + \text{HCO}_3^- \]
FIG. 4.26. PIPER'S TRILINEAR DIAGRAM OF RENEBENNUR.

Cl

Ca\(^{2+}\) + Mg\(^{2+}\)

SO\(_4\)\(^{2-}\)

CO\(_3\)\(^{2-}\) + HCO\(_3\)\(^-\)

Na\(^+\) + K\(^+\)

Mg

Ca\(^{2+}\)

Cl

Na\(^+\) + K\(^+\)
FIG. 4.27. BACK'S TRILIEAR DIAGRAM OF ANW.
FIG. 4-28. BACK'S TRILINEAR DIAGRAM OF RAMEBNUR.
FIG 4.29 - DUROV'S DIAGRAM OF ANW
FIG. A.30 - Durov's Diagram of Ranebennur City
FIG 4.32 - GIBB'S DIAGRAM OF RANE BENNUR CITY
Richard's (USSL, 1954) classification of groundwater for irrigational suitability of ANW
Wilcox's (1953) Classification of Groundwater For Irrigation Suitability of ANW

**Diagram:**

- **Y-axis:** Percentage of Sodium
- **X-axis:** Specific Conductance Micromhos/cm at 25°C

Legend:
- **Excellent to Good**
- **Doubtful to Unsuitable**
- **Permissible to Doubtful**
- **Unsuitable**

The diagram illustrates the classification of groundwater based on sodium percentage and specific conductance.