Potentiometric Surface of the Basin-Fill and Bedrock Aquifers, Mineral and Missoula Counties, Western Montana

The potentiometric surface represents the altitudes of the groundwater surface which are measured relative to a datum. The datum is typically referenced to sea level or another fixed point on the earth's surface. The potentiometric surface is influenced by various factors including elevation, geology, and the hydraulic characteristics of the aquifer system.

**Explanation**

- **Potentiometric surface**: Represents the altitudes of the groundwater surface measured relative to a datum.
- **Aquifers**: TheMissoula Basin-Fill and Bedrock Aquifers are shown on the map.
- **Geology**: The map shows the geological boundaries and features that influence groundwater occurrence.
- **Topography**: The topography of the area is also depicted to show how it affects the groundwater flow.

**Figure 1**: Aquifers in the shallow and deep basin-fill aquifers are indicated on the map. The shallow basin-fill aquifers are shown in light yellow, and the deep basin-fill aquifers in dark yellow.

**Figure 2**: The potentiometric surface is represented by shaded areas with contour lines indicating the variation in altitude. The figures also show the location of wells and the water levels measured in these wells.

**Issuance**

E.W., 1996, Geographic, Missoula Co.

**References**

- Woessner, W.W., 1988, Missoula Co.
- Clark Fork River
- Flathead River
- Swan Range
- Ranges
- Contour interval: 20 ft
- The potentiometric surface represents the altitudes of the groundwater surface measured relative to a datum.

**Note**: The map was created by the Montana Department of Natural Resources and Conservation, Groundwater Program. The water levels were measured in tightly cased wells. The potentiometric surface was determined by subtracting the potentiometric surface altitude from the measured water level.

**Map Area**

Missoula County, Montana

**Projections**

- Montana State Plane North 159
- North 159

**Base Map**

- Map of the United States
- Missoula Co.
- Clark Fork River
- Flathead River
- Swan Range
- Ranges
- Contour interval: 20 ft
- The potentiometric surface represents the altitudes of the groundwater surface measured relative to a datum.

**Map Credits**

- Montana Department of Natural Resources and Conservation, Groundwater Program
- Montana Ground-Water Assessment Atlas 4, Part B, Map 6