Geologic Features

- **Shelly fossils**
- **K-bentonite bed**
- **Chert nodules**

**Quaternary and Alexandrian Cincinnasit Series**

- **Elevation (feet)**
  - **400**
  - **T.D. 1400**

- **Dolomite**
  - Light gray in fresh exposures, weathers to light buff or yellowish gray; pure to slightly argillaceous, fine grained; contains white to medium gray chert nodules present locally. Fossils are abundant and diverse; commonly including echinoderms, bryozoans and brachiopods. The base of the formation is marked by an abrupt change from relatively pure dolomite to the underlying clay and silt-rich dolomite. The base of the formation is commonly marked by an abrupt change from dolomite to clay and silt-rich deposits. The base of the formation is typically marked by an abrupt change from dolomite to clay and silt-rich deposits.

- **Galena Formation**
  - Consists of five dolomite members differentiated largely by shale content. The members are bounded by major unconformities. The Galena Formation is in the River Road outcrop in the Sterling Quadrangle (SW NW Sec. 18 T20N, R8E). Given the thickness and close proximity of the outcrop, it may be important in further detail.

- **Mosalem Formation**
  - Includes (in ascending order) the Dunleith, Wise Lake, and Dubuque. The three members are recognized within the Galena Formation in northern Illinois. The Mosalem Formation is inferred to be present at the bedrock surface in the Dixon West Quadrangle where it is present in drill cuttings from water wells most notably at 121032327100; NW Sec. 6 T20N, R8E. The Mosalem Formation consists of wavy, nodular beds mostly between 3 and 6 inches thick that are widespread and potentially useful for detailed correlation of strata. A one to two inch thick shell-rich surface (Kolata and Mosalem 1983, Kolata et al. 1998, 2001).

- **Quimbys Mill Member**
  - Includes (in ascending order) the Pecatonica, Decorah, and Mifflin. The Pecatonica is combined with the Decorah to form the Quimbys Mill Member. The base of the formation consists of wavy, nodular beds up to 1 3/4 inch thick that are commonly penetrated by calcareous nodules. The upper surface of the formation is marked by a prominent hardground surface.

- **Dolomite**
  - Largely bluish gray to buff, very fine to fine grained. The base of the formation is marked by a prominent hardground surface. The Mosalem Formation is bounded by major unconformities. The Mosalem Formation is in the River Road outcrop in the Sterling Quadrangle (SW NW Sec. 18 T20N, R8E). Given the thickness and close proximity of the outcrop, it may be important in further detail.

- **Galena Formation**
  - Consists of five dolomite members differentiated largely by shale content. The members are bounded by major unconformities. The Galena Formation is in the River Road outcrop in the Sterling Quadrangle (SW NW Sec. 18 T20N, R8E). Given the thickness and close proximity of the outcrop, it may be important in further detail.

- **Mosalem Formation**
  - Includes (in ascending order) the Dunleith, Wise Lake, and Dubuque. The three members are recognized within the Galena Formation in northern Illinois. The Mosalem Formation is inferred to be present at the bedrock surface in the Dixon West Quadrangle where it is present in drill cuttings from water wells most notably at 121032327100; NW Sec. 6 T20N, R8E. The Mosalem Formation consists of wavy, nodular beds mostly between 3 and 6 inches thick that are widespread and potentially useful for detailed correlation of strata. A one to two inch thick shell-rich surface (Kolata and Mosalem 1983, Kolata et al. 1998, 2001).

- **Quimbys Mill Member**
  - Includes (in ascending order) the Pecatonica, Decorah, and Mifflin. The Pecatonica is combined with the Decorah to form the Quimbys Mill Member. The base of the formation consists of wavy, nodular beds up to 1 3/4 inch thick that are commonly penetrated by calcareous nodules. The upper surface of the formation is marked by a prominent hardground surface.