

TABLE 5-2. CLASSIFICATION OF SEDIMENTARY ROCKS.

| TEXTURE | PARTICLE TYPE | COMPOSITION | COMMENTS | ROCK NAME | |
|--|--|---|---|--|------------------------------------|
| Detrital (Grains can be seen with the unaided eye) | INDIVIDUAL GRAINS | Detrital Grains > 2 mm | Any rock type with quartz, chert, or quartzite predominant | Rounded particles Angular particles | Conglomerate Breccia |
| | | Detrital Grains $\frac{1}{16}$ - 2 mm (sand sized) | Rock fragments, mica, clay, quartz | "Dirty" looking, dark colored; sandpapery feel | Graywacke |
| | Quartz, with at least 25% potash feldspar | Often reddish because of potash feldspar; sandpapery feel | Arkose | | |
| | Quartz with minor accessory minerals | White, tan, brown; sandpapery feel | Quartz Sandstone | | |
| Fine (Particles cannot be seen with the unaided eye) | (Detrital grains or interlocking crystals) | Quartz and clay minerals | Gritty, 1/16-1/256 mm; some grains can be seen with hand lens | Siltstone | |
| | | Predominantly clay minerals | Smooth, < 1/256 mm; non-laminated | Claystone, Mudstone | |
| | | Predominantly clay minerals | Smooth, < 1/256 mm; laminated | Shale | |
| | | Calcite (CaCO ₃) | Consolidated; fizzes rapidly with dilute HCl | Micrite | |
| | | Calcite (CaCO ₃) | Powdery; shells of microscopic animals; fizzes with HCl | Chalk | |
| | | Dolomite (Ca,Mg) (CO ₃) ₂ | Consolidated; fizzes with dilute HCl when powdered | Dolostone | |
| | | Chalcedony (SiO ₂) | Light colored, hardness of 7 | Chert | |
| | | Chalcedony (SiO ₂) | Dark colored, hardness of 7 | Flint | |
| | | Carbonaceous Material | Plant Remains | Brown, soft, porous Brown Black, sooty, blocky | Peat Lignite Bituminous Coal |
| Chemical or Biochemical (Crystals or other grains can be seen with the unaided eye) | INTERLOCKING CRYSTALS, OIDS, or BIOCHEMICAL GRAINS | Calcite (CaCO ₃) | Fizzes rapidly with dilute HCl | Medium to Coarse Grained | Crystalline Limestone |
| | | | Abundant fossils, consolidated | Fossiliferous Limestone | |
| | | | Ooids (tiny spheres) | Oolitic Limestone | |
| | | | Banded | Travertine | |
| | | | Fossils & fossil fragments loosely cemented | Coquina | |
| | | Dolomite (Ca,Mg) (CO ₃) ₂ | Fizzes with dilute HCl when powdered | Dolostone | |
| Halite (NaCl) | Evaporite, tastes salty | Rock Salt | | | |
| Gypsum (CaSO ₄ ·2H ₂ O) | Evaporite, hardness of 2 | Rock Gypsum | | | |