

GEO. 420K
MARBLE FALLS MAPPING PROJECT

TURN IN THE FOLLOWING

- 1) Map with all contacts and symbols in ink, all units colored. Map needs:
 - a) N-arrow
 - b) Scale, both R.F. and bar scale
 - c) Contour interval
 - d) Title
 - e) Your name and the date
- 2) Description of rock units, which include
 - a) Rock name
 - b) Color, texture, grain size, sed. structures, fossils, etc.
 - c) Description of contacts with overlying and underlying units (i.e. sharp? ; gradational?, exposed?, covered?, depositional or faulted?)
 - d) Characteristic vegetation and topographic expression of the unit (ridge former, flat, hill capper, terrace, etc.)
- 3) Symbol explanation - can be copied from the example sheet

*****See the sample map for how this can be laid out. Unit descriptions can be on a separate piece of paper or on the back of the map. *****

HELPFUL HINTS

- 1) Begin by locating topographic features of interest; lakes, hills, ridges, drainages, etc. This can be done while driving through the map area.
- 2) Examine and describe the mudstone/shale exposed on the NW and NE shores of the largest lake. These are the only places where the shale is exposed. Note the vegetation growing on the shale away from the lake - it is largely grass covered. Map these grassy areas as shale.
- 3) Examine and describe the sandstone on the hill east of the lake. These are the best sandstone exposures of the map area. Locate the lower contact of the sandstone layer and walk it south. With your map oriented, draw the contact as you walk. Be aware of rock "in-place" and that "out-of-place" (float). Where the contact can be located precisely within 30 feet, use a solid line; elsewhere estimate its location with a dashed line. Do this for all contacts. You will find it useful to consider the topographic and vegetative expression of each of the units; most contacts will have to be inferred on the basis of these characteristics.
- 4) A Quaternary unit is exposed in gullies below the dam. Note the vegetation and topography associated with it and use these as mapping guides.
- 5) Why is the Marble Falls Limestone, the oldest unit of the map area, topographically higher than the younger Smithwick sandstone and shale?
- 6) It is not necessary to walk every foot of ground. Use your head and eyes - go where you expect to find rock exposed. Use topography and vegetation as a guide.