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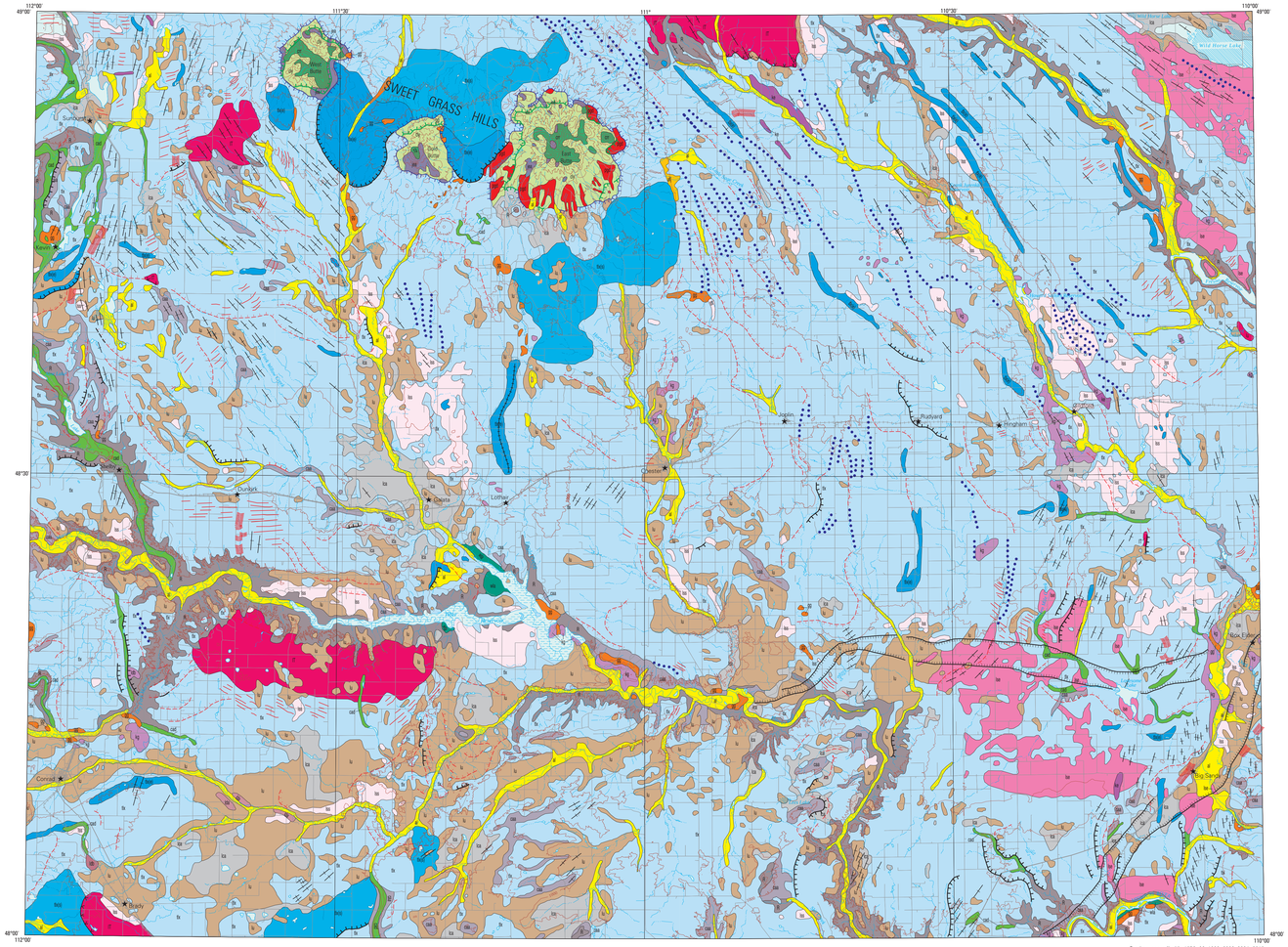
U.S. Department of the Interior
U.S. Geological Survey

Prepared in cooperation with the
Montana Bureau of Mines and Geology

OPEN-FILE REPORT 2012–1170



SCALE 1:250 000

0 5 10 15 MILES
0 5 10 15 KILOMETERS

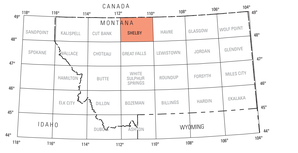
Base hydrology from U.S. Geological Survey, 1955
Base topography from National Elevation Dataset (NED), U.S. Geological Survey 1974 (http://seamless.usgs.gov)
Base cities, roads, and railroads from Montana State Library 2011 (http://nris.mt.gov)

TRANSVERSE MERCATOR PROJECTION
1927 North American Datum

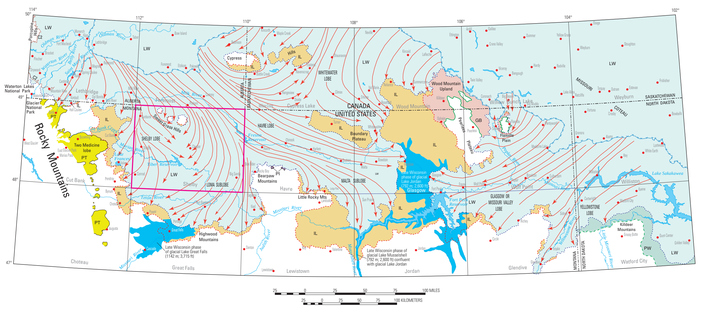
CONTOUR INTERVAL 100 METERS

1955 MAGNETIC DECLINATION FROM TRUE NORTH VARIES FROM 19½° EASTERLY FOR THE CENTER OF THE WEST EDGE TO 16½° EASTERLY FOR THE CENTER OF THE EAST EDGE. ANNUAL CHANGE IS 0°40' WESTERLY

NOTE:
This map was prepared to serve as a database for compilation of a Quaternary geologic map of the Lethbridge 4° x 6° quadrangle, United States and Canada (scale 1:1,000,000). Letter symbols for the map units are those used for the same units in the Quaternary Geologic Atlas of the United States map series. This map is a simplified compilation of data from many sources, listed in SOURCES OF INFORMATION, at several map scales. Some of the map data are simplified and generalized. For example, small areas of pediment, alluvial fan, and terrace deposits (map unit **pgd**) that were mapped separately at larger scales by others, here are combined as single polygons. Many surficial deposits that can be shown accurately as small polygons at 1:250,000 scale are omitted here because they are too small to be shown at 1:1,000,000 scale.
Map units are surficial deposits and materials, not landforms. The deposits that comprise some constructional landforms (e.g., ground-moraine deposits, end-moraine deposits, and stagnation-moraine deposits), all composed of till, are distinguished for purposes of reconstruction of glacial history. Deposits and materials are distinguished on the basis of genesis, lithology or composition, texture or particle size, and other physical, chemical, and engineering characteristics. It is not a map of soils that are recognized in pedology or agronomy. Rather, it is a generalized map of soils as recognized in engineering geology, or of substrata or parent materials in which pedologic or agronomic soils are formed.



INDEX TO 1:250,000 TOPOGRAPHIC QUADRANGLES
Showing location of the Shelby 1° x 2° quadrangle in red


Waterton Lakes National Park
Glacier National Park
Rocky Mountains
Cypress
Wood Mountain Upland
Missouri River
Yellowstone River
Bearpaw Mountains
Little Rocky Hills
Sweet Grass Hills
Highwood Mountains
Judith Basin
Big Snowy Mountains
Little Belt Mountains
Crazy Mountains
Bull Mountains
Pryor Mountains
Beartooth Mountains
Absaroka Mountains
Owl Mountains
Sidney
Glendive
Miles City
Billings
Great Falls
Lewistown
Chinook
Havre
Shelby
Cut Bank
Kalispell
Two Medicine Valley
Lake Sakakawea
Lake Oahe
Lake Sharpe
Lake Francis Case
Lewis and Clark Lake
Gavins Point Dam
Fort Peck Lake
Fort Peck Reservoir
Yellowstone Lake
Flathead Lake
Glacial Lake Great Falls and Musselshell
Glacial Lake Missoula
Glacial Lake Glendive
Glacial Lake Lewis
Glacial Lake Kootenai
Glacial Lake Souris
Glacial Lake Agassiz
Glacial Lake Regina
Glacial Lake Hind
Glacial Lake Saskatchewan
Glacial Lake Assiniboine
Glacial Lake Poplar
Glacial Lake Wilkin
Glacial Lake Dakota
Glacial Lake Aurora
Glacial Lake Souris