



Map 1
GEOLOGICAL MAP OF THE FLATHEAD
AND FERNIE - ELK VALLEY AREAS

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Compiled from published maps and reports by Rose et al. (1950), Douglas (1956), Leach (1960), 1979, Price (1962a, 1965), Gossy (1962), Oswald (1964a), Jones (1966, 1977), Jones (1976), Casper (1976), Glenewinkel (1975, 1987), Bonenbrot and Price (1976), Gibson (1979), Connelley (1981), Green (1981, 1983), Green and Price (1980), Hoy and van der Heyden (1988), Mott (1989), Siewle (1987), Wheeler and McFady (1991), Harrison et al. (1992), Price et al. (1992a,b), Norris (1993a,b), McMeche (1998), Dawson et al. (1998), Brown and Cameron (1999), and Journeay et al. (2000).

IMPORTANT NOTE
Grid and Base Map is NAD83. Wells are named because the B.C. Petroleum Grid is defined according to the NAD27 grid; well names do not appear to correspond to their locations. The location of well locations with respect to topographic features is correct.

- LEGEND**
- Quaternary: fill, outwash sands and gravels, lacustrine deposits
 - Areas interpreted to be slide blocks by Jones (1977)
 - Tertiary: Oligocene Katherah Formation in Flathead Valley and Miocene St. Eugene Formation in Rocky Mountain Trench
 - Upper Cretaceous: Albert Group (Blackstone, Cardium and Wapiti Formations), and Belly River Formation
 - Lower Cretaceous Blainmore Group: Cadomin, Gladstone, Beaver Mines, Ma Butte and Crownest Formations
 - Upper Jurassic to Lowermost Cretaceous Kootenay Group: Morrissey, Mint Mountain and Elk Formations; includes Fernie Formation south and east of Savanna Creek
 - Triassic Spray River Group and Jurassic Fernie Formation: Fernie included in unit JK south and east of Savanna Creek
 - Pennsylvanian and Permian Rocky Mountain Supergroup: Pennsylvanian Spray Lakes Group (Tyrwhitt, Stonak, Tobormory and Kanaskas Formations) and Permian Isabell Group (Johnson Canyon, Telford, Ross Creek and Ranger Canyon Formations); included in unit M south and east of Savanna Creek
 - Mississippian: Exshaw Fm., Barff Fm., and Rundle Group (Livingstone, Mount Head and Etherington Formations); includes Pennsylvanian Spray Lakes Group south and east of Savanna Creek
 - Cambrian and Devonian: Middle Cambrian Elko, Gordon and Windsor Mountain Formations; Middle Devonian Yohoite Formation; and Upper Devonian Fairholme Group (Pholioskie, Bonasat, Mt Hawk, and Southpeak (i.e. Leduc and Nisku) Formations) Alexo, Sassanach, and Paliser Formations; includes Lower and Upper Cambrian, Ordovician and Silurian strata north of Dibble and Gypsum faults in westernmost part of map
 - Precambrian Purcell Supergroup
 - Phanerozoic Intrusive Rocks: Permian-Triassic kimberlite pipe northwest of Elkford (Greene, 1981, 1982) mid-Cretaceous trachyte and syenite west and east of Flathead Valley (Price, 1962a, 1965), and Cretaceous granitic intrusives west of the Bull River and in the Rocky Mountain Trench (Leach, 1956, 1960).
 - South of this point, and east of Coleman Thrust, Pennsylvanian and Permian Rocky Mountain Supergroup mapped with Mississippian, and Jurassic Fernie Formation mapped with Jura Cretaceous Kootenay Group
 - Western Front Ranges is an informal term used here for the Front Ranges of the Rocky Mountains west of the Elk River Valley

- SYMBOLS**
- Contact
 - Approximately located contact
 - Normal fault
 - Normal fault covered by Quaternary
 - Thrust fault
 - Thrust fault approximately located
 - Structural cross sections:
Flathead (FJ)
Fernie-Elk Valley (FEV)
 - Oil well
 - Gaswell
 - Abandoned gaswell
 - Location
 - Test hole
 - Abandoned
 - Surface location of deviated hole

