



# EXPLANATION

Order may not reflect age

- pCm Mayo Formation
- pCc Crow Formation
- pCb Bugtown Formation
- pCg Garnetiferous quartz-mica schist
- pCqs Quartzite and sillimanite schist
- pCqm Quartz-mica schist  
Containing some beds of grunerite schist
- pCgg Garnetiferous and graphitic schist
- pCgb Pegmatite and granite
- Northeast-trending dike of layered pegmatite

PRECAMBRIAN

- Possible thrust fault  
Queried where inferred. Sawteeth on upper plate
- Fault from photographs
- Concealed fault  
Showing probable direction of movement. Located by airborne magnetometer survey and by gravity survey
- Lineament
- Anticline  
Showing crestline and direction of plunge
- Syncline  
Showing troughline
- Overtaken anticline  
Showing direction of dip of limbs
- Monocline  
Showing trace and direction of plunge. Dashed where indefinite
- Strike and direction of dip of beds
- Magnetic contours  
Showing total intensity magnetic field of the earth in gammas relative to arbitrary datum. Hachured to indicate closed areas of lower magnetic intensity. Interval 100 gammas
- Measured maximum or minimum intensity within closed high or closed low  
In gammas

Contact  
Dashed where approximately located or based on reconnaissance mapping; short dashed where indefinite. Dotted line shows limit of mapped area

Normal fault  
Located in structural zone, or northeast of mapped area shown on plate 1

104°07'30"	103°22'30"			
43°52'30"	4	3	2	
	5			
	6	7	1	1
		8	9	10
			11	12
			13	14
			15	16
43°15'				

## SOURCES OF DATA

References are listed in text

1. Meuschke, Johnson, and Kirby (1963) [aeromagnetic data]
2. Redden (1963, pl. 21 and fig. 75)
3. Darton and Paige (1925)
4. Brobst and Epstein (1963, pl. 25)
5. Cuppels (1963, pl. 23)
6. Brobst (1961, pl. 5)
7. Braddock (1963, pl. 20)
8. Schnabel (1963, pl. 17)
9. Gott and Schnabel (1963, pl. 12)
10. V. R. Wilmarth, U.S. Geol. Survey (unpub. data)
11. Wolcott, Bowles, Brobst, and Post (1962)
12. Wolcott (1967, pl. 28)
13. Ryan (1964, pl. 27)
14. Bell and Post (1971, pl. 32)
15. Post (1967, pl. 29)
16. Connor (1963, pl. 11)

Gravity data by R. A. Black, U.S. Geol. Survey (unpub. data)

MAP OF PART OF THE SOUTHERN BLACK HILLS, SOUTH DAKOTA AND WYOMING, SHOWING MESOZOIC AND CENOZOIC DEFORMATION ALONG PRECAMBRIAN STRUCTURES