

CORRELATION OF MAP UNITS			
Qal	Qh	Qm	QUATERNARY
Tg	Tv1	Tv2	
UNCONFORMITY			TERTIARY(?)
Kgn	Kgb	Ch	
UNCONFORMITY			CRETACEOUS(?)
Yp1	Ygr	Ym	
Ybo	Yms	Ysh	CAMBRIAN
Yan	Yw	Yh-w	

- CONTACT--Dashed where approximately located; dotted where concealed
- FAULT--Dashed where approximately located; dotted where concealed. Bar and ball on downthrown side
- THRUST FAULT--Dashed where approximately located; query where presence of thrust fault suggested by stratigraphic information and by prominent trace on air photograph. Sawtooth on upper plate
- ANTICLINE--Showing axis. Approximately located
- STRIKE AND DIP OF BEDS
- Inclined Horizontal Vertical
- BRECCIA ZONE IN WALLACE FORMATION
- THIN DIKE ALONG A FAULT ZONE

DESCRIPTION OF MAP UNITS

Qal ALLUVIAL DEPOSITS (HOLOCENE)

Qh LANDSLIDE DEPOSITS (HOLOCENE AND PLEISTOCENE)

Qm TILL AND ROCK GLACIER DEPOSITS (PLEISTOCENE)

Tg GRAVELS (TERTIARY?)--Poorly lithified gravel, sand and mud with minor lapilli tuff and air-fall tuff

Tv1 EXTRUSIVE AND INTRUSIVE ROCKS (TERTIARY?)--Trachy-andesite and rhyolite

Kgn GRANITIC INTRUSIVE ROCKS (CRETACEOUS?)--Quartz monzonite and granodiorite plutons, stocks, and dikes; commonly porphyritic, with minor crosscutting aplite and pegmatite dikes

Kgb GABBROIC INTRUSIVE ROCKS (CRETACEOUS?)--Gabbro stocks and diabase dikes; some diabase dikes may be pre-Cretaceous in age

Ch HASNAM FORMATION--Light-gray, crystalline dolomite

Yp1 PILCHER QUARTZITE (PRECAMBRIAN Y)--Medium- to coarse-grained, crossbedded orthoquartzite

Ygr GARRET RANGE FORMATION (PRECAMBRIAN Y)--Dark-green, fine-grained sandstone with intercalated muddy and silty sandstone

Ym MCNAMARA FORMATION (PRECAMBRIAN Y)--Red and green variegated argillite, silty argillite and minor fine-grained feldspathic sandstone

Ybo BONNER QUARTZITE (PRECAMBRIAN Y)--Medium- to coarse-grained and pebbly, crossbedded, feldspathic sandstone

Yms NEXT SHIELDS FORMATION (PRECAMBRIAN Y)--Massively bedded feldspathic siltstone and laminated red and green argillite with thin siltstone interbeds

Ysh SHEPARD FORMATION (PRECAMBRIAN Y)--Laminated green argillite with tan-weathering dolomite beds

Ysn SNOWSLIP FORMATION (PRECAMBRIAN Y)--Red siltstone and sandstone interbedded with red argillite and green dolomitic argillite beds

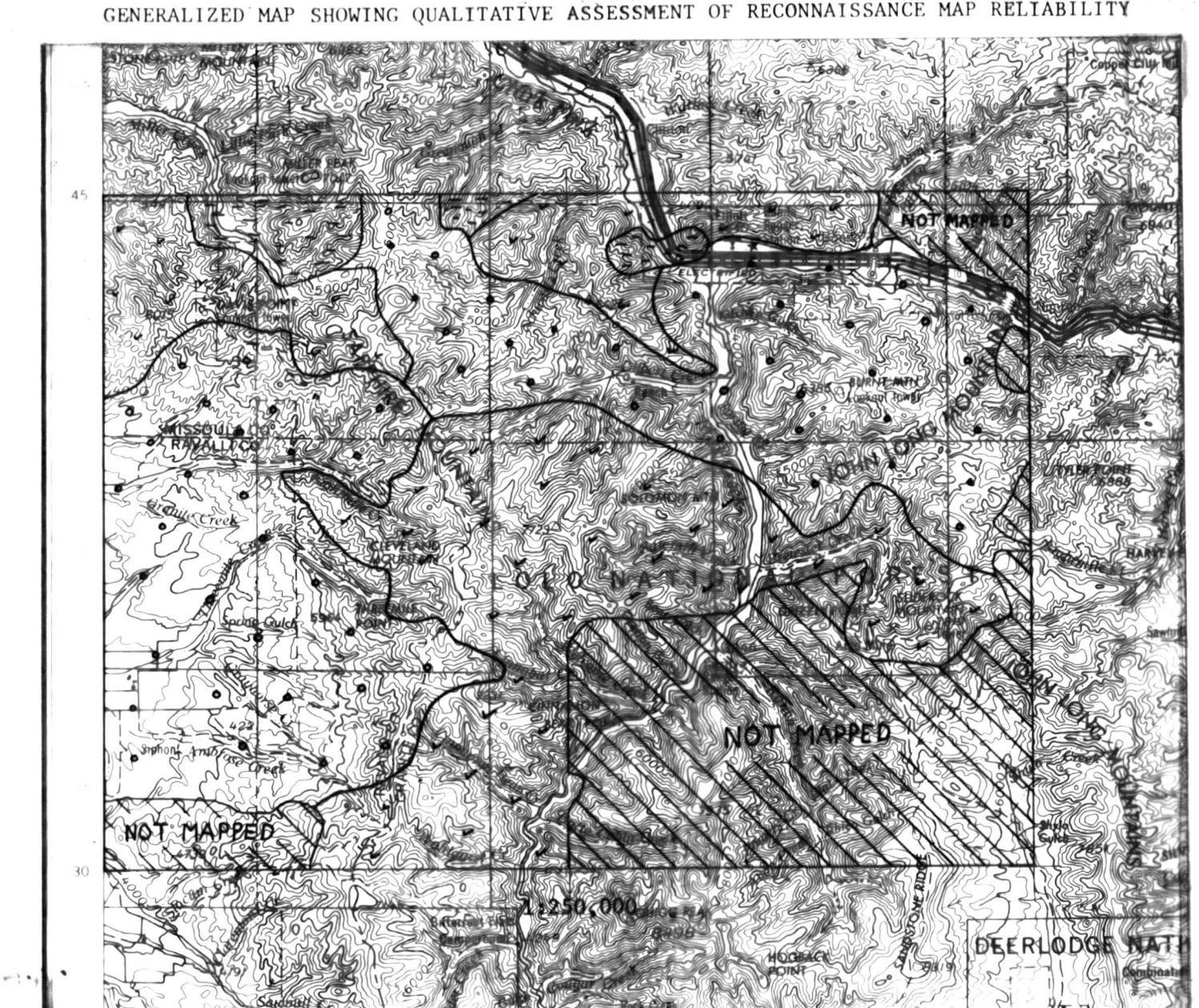
Yw WALLACE FORMATION (PRECAMBRIAN Y)--Laminated dolomitic siltstone and sandstone, dolomite, and green and dark-gray argillite

Yh HELENA FORMATION (PRECAMBRIAN Y)--Gray, thickly bedded limestone with minor dark-gray argillite and dolomite-venetted siltstone interbeds

Yh-w HELENA-WALLACE FORMATIONS--Area of facies change from Wallace Formation to Helena Formation

Yhe UNDIFFERENTIATED ROCKS OF THE BEIT SUPERGROUP

--Ch cross section only



PRELIMINARY RECONNAISSANCE GEOLOGIC MAP OF
THE CLEVELAND MOUNTAIN AND NORTH HALF OF THE
RAVENNA QUADRANGLES (1:48,000), WESTERN MONTANA
By
C. A. Wallace and M. R. Klepper
1976

This report is preliminary and
not been edited nor reviewed for
conformity with U.S. Geological
Survey standards and nomenclature.

