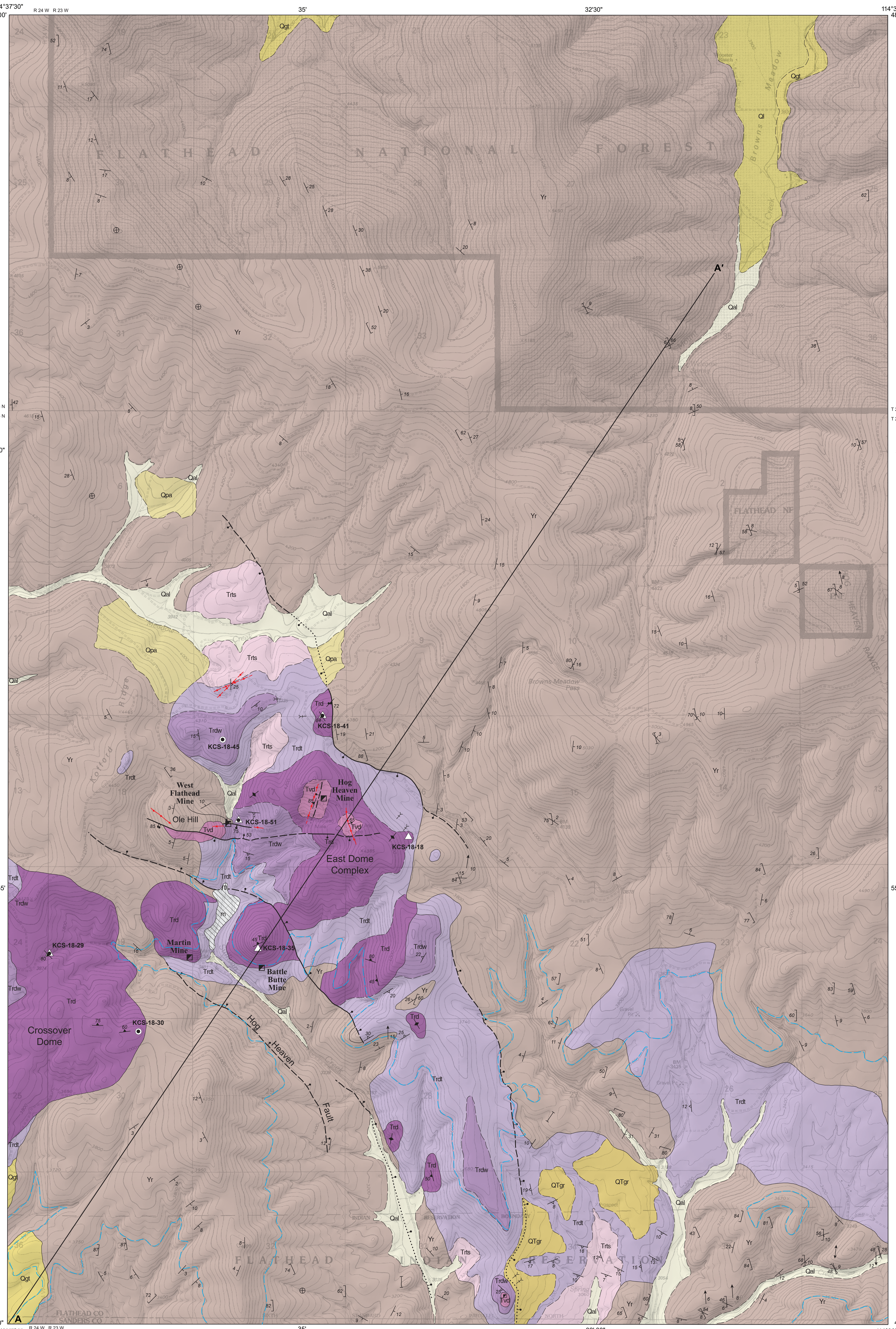


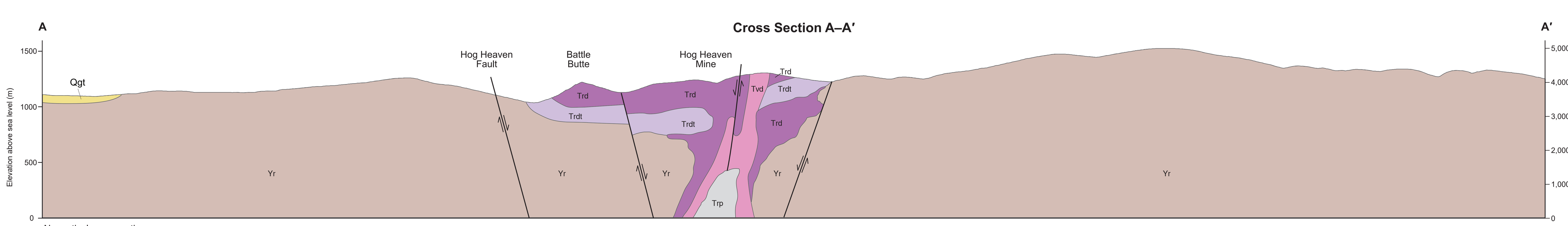
Base map produced by the United States Geological Survey
Kofford Ridge 1:24,000-scale quadrangle map
Control by: USGS and USC&GS
Compiled from aerial photographs taken 1963
Revised from aerial photograps taken 1990
Partial field check by U.S. Forest Service 1994
Projection: Lambert conformal conic
Grid:1000 meter Universal Transverse Mercator Zone 12
Vertical Datum: National Geodetic Vertical Datum of 1929
Horizontal Datum: 1927 North American Datum

Shaded relief created from 10 meter digital elevation model from U.S. Geological Survey National Elevation Dataset.

Utm grid and 2017 magnetic north declination at center of sheet

SCALE 1:24,000
CONTOUR INTERVAL 40 FEET
NATIONAL GEODETIC VERTICAL DATUM OF 1929

Maps may be obtained from:
Publications Office
Montana Bureau of Mines and Geology
1300 West Park Street
Butte, Montana 59701-8997
Phone: (406) 496-4167
http://mbmg.mtech.edu



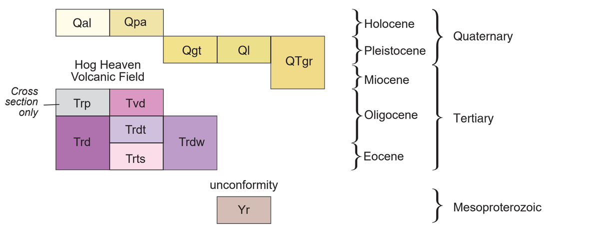
No vertical exaggeration
Surficial units not shown

Trp Rhyolite porphyry (cross-section only)

SCALE 1:24,000

Research supported by the U.S. Geological Survey, National Cooperative Geologic Mapping Program, under USGS award number G18AC00200.
GIS production: Amanda Rossi, Yiwen Li, and Paul Thale, MBMG.
Map layout: Susan Smith, MBMG. Editing: Susan Barth, MBMG.

CORRELATION DIAGRAM



MAP SYMBOLS

- Contact: dashed where approximately located
- Normal fault: dashed where approximately located; dotted where concealed, bar and ball on downthrown side, arrow shows dip direction and angle
- Glacial Lake Missoula highstand, after Locke and Smith (2004)
- Mineral vein: arrow shows dip direction and angle
- Horizontal bedding
- Inclined bedding, showing strike and dip
- Inclined pressure-solution cleavage, showing strike and dip
- Vertical pressure-solution cleavage
- Inclined igneous compaction foliation, showing strike and dip
- Inclined igneous flow banding, showing strike and dip
- Vertical igneous flow banding
- Trend and plunge direction of bedding and pressure-solution cleavage intersections
- Trend of non-plunging bedding and pressure-solution cleavage intersections
- Mine shaft
- Adit or tunnel entrance (caved)
- Sample: Bulk rock geochemistry (table 1) and U-Pb geochronology (table 2)
- Sample: U-Pb geochronology (table 2)
- Sample: Bulk rock geochemistry (table 1) and geochronolgy Ar-Ar (table 3)

INTRODUCTION

The Kofford Ridge 7.5′ quadrangle is located in northwestern Montana, about 16 km (10 mi) west of Flathead Lake. The southernmost part of the quadrangle lies within the Flathead Indian Reservation boundary. Browns Meadow road connects the town of Niarada to the south, with Kila to the north, and bisects the quadrangle. Dense forest covers most of the quadrangle, but a large network of mining and logging roads allows access to most of the terrain. Elevation ranges from about 910 m (3,000 ft) along Sullivan Creek in the south-central part of the quadrangle, to about 1,680 m (5,500 ft) in the unnamed hilltops of Flathead National Forest in the north-central part of the quadrangle. The Hog Heaven Mine (formerly the Flathead Mine) was a historic producer of silver and remains a target of precious- and critical-commodity exploration. The Anaconda Copper Company sunk the first shaft at the property in 1913.

Previous Mapping

Sears (1991) mapped the Flathead Indian Reservation at 1:100,000 scale (unpublished). Harrison and others (1986), and Johns (1970) published regional geologic maps encompassing the Kofford Ridge 7.5′ quadrangle at scales of 1:250,000, and 1:126,720, respectively. Lange and Zehner (1992) mapped the Hog Heaven Volcanic Field (HHVF, fig. 1) at 1:24,000 scale. Surficial geologic maps of the upper Flathead Valley (Smith, 2004) and 1:24,000-scale mapping of parts of the McGregor Peak, Murr Peak, Marion, and Hubbart Reservoir 7.5′ quadrangles (Montejo, 2021) guided mapping of the Quaternary deposits.

Geologic Summary

Mesoproterozoic Belt Supergroup rocks (figs. 2A, 2B) are the primary lithology exposed in the quadrangle. The metasedimentary rock sequence consists of thin-bedded argillite, siltite, and minor quartzite of the Revett Formation , which belongs to the Belt Ravalli Group (Sears, 1991; Harrison and others, 1986; Johns, 1970). Harrison and others (1986) mapped Mesoproterozoic Spokane and Burke Formation rocks in the east part of the quadrangle, but these rocks appear the same as the Revett Formation in the west part of the quadrangle. On this basis, we assign all Belt rocks in the quadrangle to the Revett Formation.

The Oligocene to Late Eocene HHVF covers an area of around 50 km^2 (20 mi^2) in northwestern Montana (fig. 1). The HHVF consists of three northeast-aligned dacite lava and dome complexes, and related pyroclastic rocks emplaced during Late Eocene to Oligocene extension between about 36 and 30 Ma (Lange and others, 1994). The volcanic field consists mostly of high-K felsic rocks that have a restricted range in SiO_2 (65.2–72.9 wt. percent) (Lange and others, 1994). HHVF magmatism correlates in time with voluminous calc-alkaline, dacitic to rhyolitic ash-flow tuff volcanism that is recognized throughout the Great Basin and elsewhere in Montana (e.g., Best and others, 1989; Christiansen and Yeats, 1992). This episode of Great Basin magmatism is associated with the development of isolated volcanic-hosted precious metal deposits, and mostly predates the onset of significant Basin and Range extension (Seedorf, 1991).

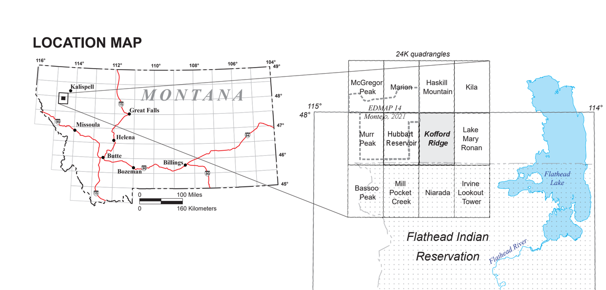
Gravels (QTgr) in the southeastern corner of the quadrangle form pediment surfaces over HHVF tuff (Trdt), indicating that the gravels are younger than the HHVF. Quaternary units include alluvium in streambeds, marshes (Qpa), and glacial deposits primarily restricted to the northern end of the quadrangle. Glacial Lake Missoula flooded the region, including the Kofford Ridge 7.5′ quadrangle, during the northward retreat of the Pleistocene Cordilleran Ice Sheet between about 15,000 and 13,000 years ago (Pardee, 1942; Locke and Smith, 2004). Shorelines are conspicuous in the hills at elevations above about 1,097 m (3,600 ft) south of the quadrangle. Glacial lake shorelines were not mapped during the present study, but a reasonable high stand is shown on the map (after Locke and Smith, 2004).

Structure

The Belt Basin forms a northeastward-thinning clastic wedge that may represent a large alluvial fan complex (Winston, 1986; Ryan and Buckley, 1998) that fed a subsiding, northwest-elongate intracontinental rift basin near the continental margin of Laurentia between 1,470 Ma and 1,380 Ma (Sears and Price, 2003; Evans and others, 2000). East–west-trending strike-slip faults formed in the region during Mesoproterozoic rifting and sedimentation, and the Revett Formation hosts stratabound Cu-Ag deposits throughout the Belt Basin (Ryan and Buckley, 1998; Lydon, 2007). The Big Draw Fault (fig. 1), located about 40 km (25 mi) south of the quadrangle, has right-lateral shear sense and down-to-the-south dip slip offset of 55 m (180 ft; Harrison and others, 1980; Ryan and Buckley, 1998). An east–west-trending high-angle fault zone cuts mineral deposits at the Hog Heaven Mine in the central portion of the quadrangle (see map) and may have served as important structural control for hydrothermal ore deposits at the HHVF. The east–west structures may have complex slip histories, with reactivation during both Mesozoic folding and younger Miocene extension.

Mesozoic folding and thrusting produced a series of broad north–northwest-trending folds in the Belt metasediments (e.g., Harrison and others, 1980). Folded Belt rocks occur near the crest of the Purcell Anticlinorium (fig. 1; Mudge, 1982), a regional scale fold that formed by buckling over a ramp in the fold-thrust wedge along the edge of thickened continental crust during the Late Cretaceous to Paleocene (Lange and others, 1994). In the Kofford Ridge 7.5′ quadrangle, gently folded Belt rocks have limbs that generally dip less than 25°. The argillite beds usually have a strong pressure-solution cleavage (fig. 3A) that strikes north–northwest and dips steeply to the west (average of 70°; Lange and Zehner, 1992).

The Hog Heaven Fault forms the southwestern boundary between the East Dome Complex and Crossover Dome in the southwest corner of the quadrangle. Lange and others (1994) proposed that north–northwest-trending grabens in the HHVF formed by pull-apart between overlapping east–west-trending right-lateral, right-stepping, strike-slip faults (i.e., Big Draw Fault; fig. 1). A north–northwest-trending normal fault is overlain by gravels (QTgr) in the southern part of the map, indicating that fault slip pre-dates the gravels at this location. The north–northwest-trending faults may be related to Miocene Basin and Range block faulting since the quadrangle lies within the Intermountain Seismic Belt, which has been shaped by mid-Miocene to recent Basin and Range extensional block faulting (Reynolds, 1979; Stickney and others, 2000).



Economic Geology

Oligocene-epithermal high-sulfidation mineralization at the Hog Heaven Mine produced rich zones of Ag-Au-Pb-Cu-Zn-As ore during the waning stages of magmatic activity (Lange and others, 1994). The ore deposits are distinctly polymetallic, with high base metals (Pb > Zn, Cu) and Ag, but relatively low Au (Ag:Au ratio > 2,000:1; Lange and others, 1994). The ore deposits are also enriched in Ba, As, Sb, and Te. In many ways the deposits are similar to volcanic-hosted, high-sulfidation, epithermal gold deposits as they have advanced argillic alteration zones that extend to significant depths, contain abundant high-temperature alunite, kaolinite, pyrophyllite, and "vuggy silica" alteration facies, and a sulfide mineral assemblage that includes enargite as the dominant copper mineral. A 66 to 131 ft (20 to 40 m) supergene gossan at Ole Hill (fig. 3B) caps the ore deposits west of the West Flathead Mine (see map). Brixton Metals (Vancouver, B.C.) owns the mineral rights and has completed 722 drill holes with a total of around 57 km (35 mi) of drill core. Ivanhoe Electric Inc. is the current operator at the mine.

Basinal dewatering during the rift-fill stage of the Mesoproterozoic Belt Basin (fig. 2A) produced world-class Zn-Pb-Ag SEDEX and Ag-Pb vein deposits in the Canadian and northern U.S. Rockies (Lydon, 2007). Syndepositional east–west-trending Mesoproterozoic structures, like the Big Draw Fault (fig. 1), controlled stratabound Cu-Ag mineralization in the immediate region (Ryan and Buckley, 1998). Therefore, the east–west-trending fault in the vicinity of the mineralized diatreme (Tvd) at the Hog Heaven Mine (see map and cross-section) may have been a pre-existing source of metal that was later recycled during HHVF hydrothermal activity and ore formation.

DESCRIPTION OF MAP UNITS

Sediments

m **Modified (Holocene)**—Modified by modern human activities.

Qal **Alluvium (Holocene)**—Unconsolidated, stratified sand, silt, and clay deposited in modern streams and flood plains. The unit is typically less than 10 m (33 ft) thick.

Qpa **Paludal deposit (Holocene)**—Sand, silt, and organic matter deposited in swamp, marsh, or pond. Thickness probably less than 10 m (33 ft).

Qgt **Glacial till, ablation deposit (upper Pleistocene)**—Weakly stratified deposit of clay, silt, sand, and gravel with abundant, locally derived, rounded to sub-rounded cobbles and boulders. Estimated thickness about 100 ft (30 m).

Ql **Lacustrine deposits (Holocene)**—Mostly calcareous silt, clay, and organic debris deposited in perennial and ephemeral lakes; includes minor amounts of sand and gravel. Underlies Browns Meadow in northeast part of quadrangle. Thickness unknown, but likely 1–30 ft (9 m; Smith, 2004).

QTgr **Gravel (Quaternary–Tertiary)**—Poorly sorted, predominately cobble-sized conglomerates composed of subangular to subrounded Belt Supergroup rocks, primarily quartzite. The unit is poorly indurated and is not stratified where exposed. The gravel deposits are recognized as a semi-continuous veneer of multicolored quartzite cobbles that overlie tuff and tuffaceous sediments (Trdt) in the southeastern corner of the map. Estimated thickness up to 65 ft (20 m) thick.

The Hog Heaven Volcanic Field

Rhyodacite lavas and dome complexes (Trd) and pyroclastic rocks of similar composition (Trdw, Trdt, and Trts) formed between about 31 and 35 Ma (tables 2, 3). Volcanic activity initiated with at least one ignimbrite-forming caldera eruption that produced a crater, that partially filled with sediment and vegetation, including trees (Lange and others, 1994). Rhyodacite lavas and dome complexes later intruded the crater, likely along ring fractures of the caldera vent wall. Rhyodacite domes are coarsely crystalline and exhibit steep contacts with the Revett Formation (Yr), whereas lavas are medium-grained, autobrecciated, and have shallowly dipping igneous foliations where in contact with Yr. Late-stage hydrothermal activity, alteration, and ore deposits likely accompanied emplacement of a porphyry rhyolite plug at depth (Trp; see cross-section and correlation diagram, Lange and others, 1994).

Tvd **Volcanic rock, vent diatreme (Oligocene)**—Volcanic breccia deposits are associated with acid-sulfate, or vuggy-silica, alteration zones, and high sulfidation mineral deposits. The ore-bearing parts of the diatreme contain angular Belt clasts that are 4–5 cm (1.57–1.96 in) long on average, and as large as 50 cm (19.6 in) long. Includes blood-red oxide gossan at Ole Hill (fig. 3B) near the West Flathead Mine. Bleached and silicified coarse dacite porphyries occur near most historic mine workings. The gossan at Ole Hill displays botryoidal and drippy textures, suggesting open space during its formation. Barite veins (2–5 cm; 0.08–2 in wide) cut the gossan and small, sub-centimeter, boxy barite crystals are common at the surface of vent diatreme deposits. Rhyodacite domes (Trd) are cut by hydrothermal ore deposits at the Hog Heaven Mine (Lange and others, 1994). Logs up to 1 m wide are encased in rhyodacite porphyry lavas, which were later completely replaced by barite. Alunite that formed alongside massive pyrite and enargite in the diatreme has a K-Ar age of 29.8 ± 0.8 Ma (Lange and others, 1994).

Trd **Rhyodacite (Oligocene and Late Eocene)**—Rhyodacite (66.7–67.6 wt. percent SiO_2; table 1) lavas and dome complexes are light tan in outcrop and coarsely porphyritic in fresh hand samples. Phenocrysts typically include euhedral 1- to 2-mm (0.39–0.78 in) long biotite, altered plagioclase, and growth-zoned sanidine crystals up to 6 cm (2.36 in) long. Lange and others (1994) recognized five rock varieties in the East Dome Complex (oldest to youngest): (1) fine-grained rhyodacite porphyry; (2) coarse-grained sanidine-bearing rhyodacite porphyry; (3) Battle Butte lower lavas; (4) Battle Butte upper lavas; and (5) post-mineralization rhyodacite porphyry lavas that have since been eroded off the pile. Most of the ore deposits occur either within and/or immediately adjacent to the large-grained sanidine-bearing porphyry rhyodacite dome complexes. Cryptocrystalline quartz and hyaloclastite occur along the east side of the main dome that hosts the Hog Heaven Mine, suggesting that the domes intruded a depression that contained water. Lange and others (1994) reported a K-Ar age of 30.8 ± 2.4 Ma from biotite from the lower Battle Butte flows. Rhyodacite dome rocks collected in the quadrangle yielded U-Pb zircon ages that range from about 31 to 35 Ma (see table 2). A rhyodacite sample from the western edge of the Crossover Dome yielded a ^{40}Ar-^{39}Ar age on biotite of around 34.8 Ma (sample KCS-18-30; table 3), indicating that the Crossover Dome is older than the East Dome Complex. The thickness of rhyodacite deposits is variable and up to 120 m (400 ft).

Trdt **Rhyodacite tuff (Oligocene and Late Eocene)**—Primarily non-welded, crystal- and lithic-rich, rhyodacite tuff. The tuff sequence is tan to cream-colored and resembles mud flows in most locations. The moderately welded base of the tuff sequence consists of up to 10 m (33 ft) of moderately welded tuff breccia characterized by a light pink oxidized matrix and abundant angular Belt Supergroup clasts (fig. 4A) that are up to 10 cm (4 in) long. This unit comprises the majority of the HHVF in the Kofford Ridge 7.5′ quadrangle but is also the most recessive unit, and has likely been subjected to significant reworking and erosion. The unit is up to 180 m (600 ft) thick.

Trdw **Rhyodacite, welded (Oligocene and Late Eocene)**—Moderately welded, crystal- and lithic-rich, rhyodacite (67.3 wt. percent SiO_2; table 1) tuff and tuff breccia. The tuff is yellow to brown in weathered outcrops, and white to gray on fresh surfaces. Compacted pumice with length to width ratios of about 12:1 record the orientation of tuff sections, which are tilted about 10° to 20° throughout the quadrangle. Breccia zones in the tuff are poorly welded and contain angular igneous rip-up clasts up to 10 cm (4 in) long. Welded zones are crystal-rich and contain growth-zoned sanidine megacrysts that are up to 2 cm (3/4 in) wide. Marvin and others (1984) reported K-Ar ages of 31.3 ± 0.6 Ma and 34.9 ± 0.6 Ma for biotite from welded tuff in the region. A welded tuff sample collected near the Hog Heaven Mine yielded a U-Pb zircon age of about 31.1 ± 0.2 Ma (sample KCS-18-51; table 2), which is the same age as the youngest rhyodacite (Trd) rock dated in the quadrangle and considerably younger than the 35.3 Ma welded tuff in the west adjacent Hubbart Reservoir 7.5′ quadrangle (Scarberry, 2023). A sample of welded tuff collected 1.6 km (1 mi) northwest of the Hog Heaven mine has a ^{40}Ar-^{39}Ar age for biotite of 31.7 ± 0.5 Ma (sample KCS-18-45; table 3). The welded tuff is up to 110 m (360 ft) thick.

Trts **Tuff and tuffaceous sedimentary rock (Oligocene and Late Eocene)**—Poorly welded, light gray to tan lithic tuff. Lithic rip-ups are typically Belt rock fragments. The unit grades from sand-size equigranular deposits that contain 30–40 percent lithic fragments in an igneous matrix near the base, to non-welded crystal- and lithic-rich rhyodacite tuff (Trdt). The contact between tuffaceous sediments and the overlying rhyodacite tuff (Trdt) is well exposed in drainages in the southeastern part of the quadrangle. The lithic tuff is up to 50 m (160 ft) thick.

Belt Supergroup

Yr **Revett Formation (Mesoproterozoic)**—Grayish green, grayish red, and grayish blue, laminated to very thinly bedded argillite, siltite, and quartzite (fig. 4C). The siltite is characterized by climbing ripple cross-beds, scoured beds, cut-and-fill structures, troughs, mega-ripples, and lenticular quartzite beds; the argillite exhibits a conspicuous steeply oriented pressure-solution cleavage (fig. 3A), mudcracks, and ripples (Ryan and Buckley, 1998). The quartzite beds are flat-laminated to cross-bedded and often sericitic. Although not subdivided here, Revett deposits in the quadrangle most resemble the middle and upper part of the formation as described by Ryan and Buckley (1998) at Revais Creek, located about 80 km (50 mi) south of the quadrangle. Liesegang banding is observed in Yr siltite (fig. 4B) adjacent to the overprinting oxide gossan (facies of Tvd) at Ole Hill (fig. 3B). Liesegang oxide bands record iron diffusion through the siltite and may have formed synchronously with the hydrothermal events that produced the gossan at Ole Hill. Thickness as much as 900 m (3,000 ft) in the quadrangle.

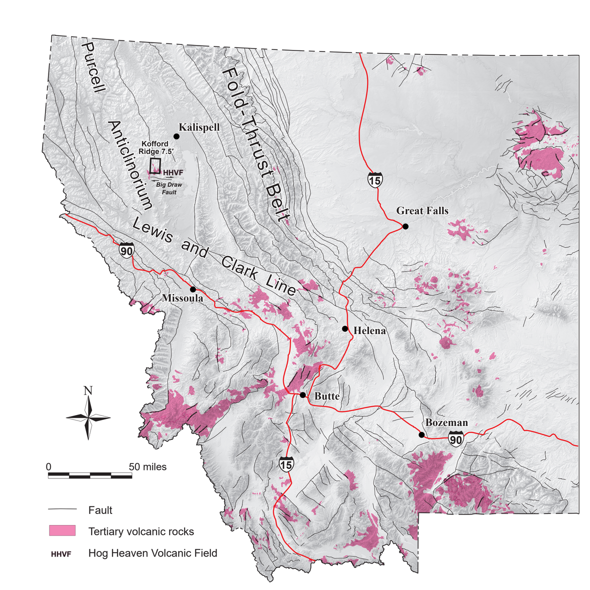


Figure 1. Location of the Kofford Ridge 7.5′ quadrangle and distribution of major faults and Tertiary volcanic rocks in western and central Montana, after Vuke and others (2007).

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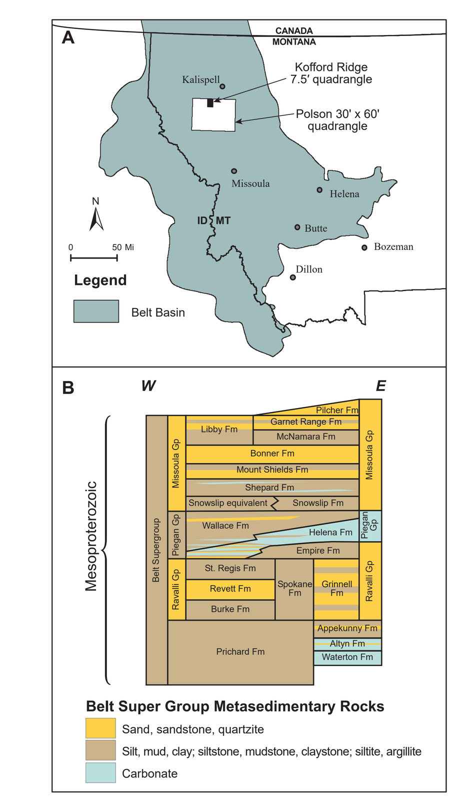

Figure 2. (A) Location of the quadrangle with respect to the Mesoproterozoic Belt Basin in Idaho and Montana. (B) Mesoproterozoic Belt Supergroup stratigraphy in north-western Montana (Vuke and others, 2007).

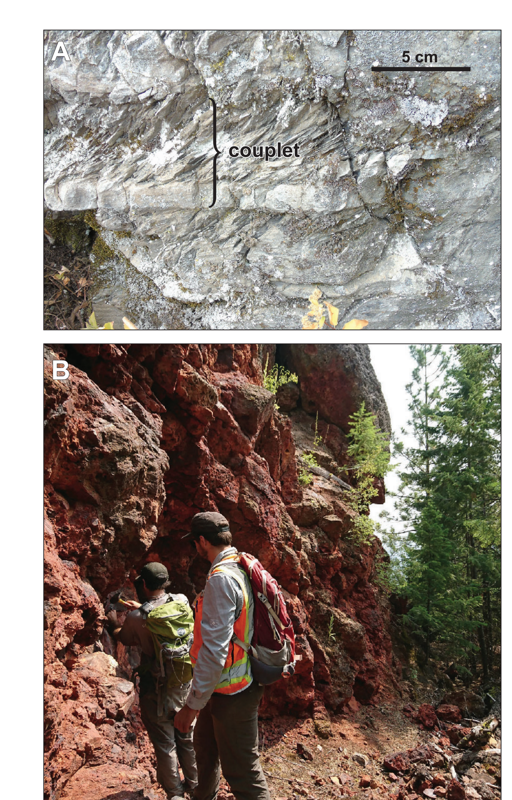

Figure 3. (A) Siltite and argillite couplets in the Revett Formation (Yr); (B) Oxide gossan (facies of Tvd) at Ole Hill located west of the West Flathead Mine in the northwestern corner of the quadrangle. Photo credit: A. Wright.

Table 1. Raw bulk rock geochemical data.

Sample ID	KCS-18-30	KCS-18-29	KCS-18-51	KCS-18-41	KCS-18-45
Map Unit	Trd	Trd	Trdw	Trd	Trdw
Latitude	47.90290	47.91034	47.92308	47.93306	47.93078
Longitude	-114.60746	-114.62011	-114.59326	-114.58134	-114.59554
major elements (wt. % oxide)					
SiO_2	67.51	67.60	67.31	66.73	67.32
TiO_2	0.54	0.54	0.38	0.39	0.36
Al_2O_3	15.84	16.02	16.85	16.76	16.62
FeO*	2.97	2.64	2.03	2.68	2.38
MnO	0.03	0.02	0.01	0.03	0.04
MgO	0.60	0.62	0.28	0.29	0.24
CaO	2.63	2.67	1.53	1.92	1.63
Na_2O	4.29	4.35	5.47	5.45	5.63
K_2O	3.11	3.08	4.26	3.72	4.31
P_2O_5	0.22	0.21	0.20	0.20	0.19
Total	97.76	97.75	98.32	98.16	98.71
LOI	1.65	1.71	1.19	1.12	0.71
trace elements (ppm)(XRF)					
Ni	6	5	6	8	6
Cr	7	6	5	11	5
V	52	49	34	46	33
Ga	18	18	20	20	20
Cu	8	7	3	7	7
Zn	57	39	82	153	64
trace elements (ppm)(ICP-MS)					
La	35.6	39.4	53.4	46.3	53.8
Ce	64.4	70.2	86.6	78.0	86.5
Pr	7.4	7.6	9.0	8.7	8.8
Nd	26.4	26.8	29.1	30.0	29.0
Sm	4.4	4.1	4.3	4.6	4.2
Eu	1.2	1.2	1.2	1.4	1.2
Gd	3.2	2.8	2.6	2.9	2.7
Tb	0.5	0.4	0.4	0.4	0.4
Dy	2.5	2.0	2.0	2.0	2.0
Ho	0.5	0.4	0.4	0.4	0.4
Er	1.3	1.0	1.0	1.0	1.1
Tm	0.2	0.2	0.2	0.1	0.2
Yb	1.2	0.9	1.1	0.9	1.2
Lu	0.2	0.2	0.2	0.1	0.2
Ba	1,856.2	1,842.8	1,792.4	1,975.8	1787.1
Th	6.6	7.1	16.8	13.3	16.6
Nb	25.3	25.3	65.5	47.9	63.6
Y	13.4	10.1	10.6	9.6	11.1
Hf	3.9	3.8	5.5	4.5	5.4
Ta	1.7	1.8	3.8	2.9	3.8
U	3.2	2.6	6.0	5.6	5.2
Pb	20.9	19.5	20.0	16.6	19.5
Rb	60.7	60.6	123.3	100.1	127.6
Cs	3.1	2.5	4.8	5.1	4.1
Sr	849.4	848.7	904.5	1075.5	932.4
Sc	5.0	4.6	2.5	3.3	2.3
Zr	150.8	145.3	243.0	198.5	241.0

Table 2. U-Pb LA-ICPMS geochronology.

Sample ID	Map Unit	Latitude	Longitude	Age (Ma)	2 σ	MSWD
KCS-18-51	Trdw	47.92308	-114.59326	31.11	0.21	2.6
KCS-18-35	Trd	47.91081	-114.59052	31.11	0.18	2.4
KCS-18-41	Trd	47.93306	-114.58134	31.94	0.18	2.4
KCS-18-18	Trd	47.92150	-114.56914	33.01	0.17	2.2
KCS-18-29	Trd	47.91034	-114.62011	35.03	0.24	3.5

Note. Reported ages are the weighted mean of ^{206}Pb-^{238}U ages obtained for each sample. Zircon separates were prepared by Ethan Coppage in the rock laboratory at the Montana Bureau of Mines and Geology, and analyzed by Jesse Mosolf at the University of California-Santa Barbara.

Table 3. ^{40}Ar-^{39}Ar geochronology.

Sample ID	Mineral	Map Unit	Latitude	Longitude	Age (Ma)	2 σ	MSWD
KCS-18-30	biotite	Trd	47.90290	-114.60746	34.78	0.05	0.85
KCS-18-45	biotite	Trdw	47.93078	-114.59554	31.68	0.05	3.37

Note. Reported ages are the weighted mean plateau ages from mineral separates. Mineral separates were prepared and analyzed at New Mexico Tech.

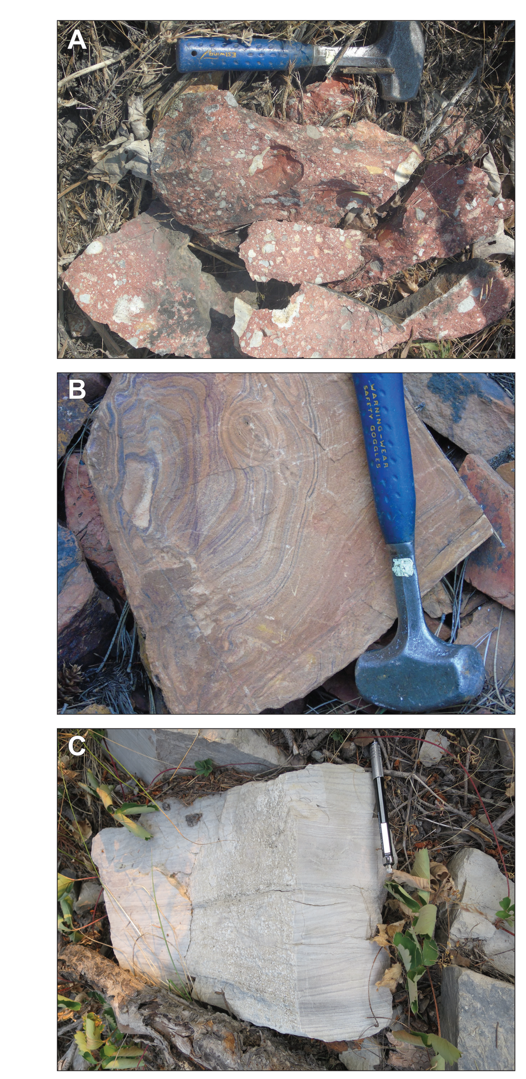

Figure 4. (A) Moderately welded rhyodacite tuff breccia (facies of Trdt); (B) Liesegang banding in Revett Formation siltite (Yr) at Ole Hill; (C) cross-bedding in sericitic quartzite of Revett Formation.

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Geologic Map 93

Geologic Map of the Kofford Ridge 7.5′ Quadrangle, Flathead and Sanders Counties, Montana

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