

# EXPLANATION

PLATE 1  
TR 85-10

## DESCRIPTION OF MAP UNITS

QUATERNARY

Qal

ALLUVIUM - Gravel, sand and silt.

Qc

COLLUVIAL - Rock fragments of various types.

Qtg

TERRACE GRAVELS - Granules, pebbles, cobbles and boulders of Tlb, Tl, Tpr, Tur and Silver City granite. Terrace gravels are possibly Tertiary in age.

Ths

HOT-SPRING SINTER - Gray, white, pink, orange, brown and black, bedded chalcedony with layers 1 mm to 3 cm thick. Much Ths contains sinter fragments and sparse rhyolite clasts. Thin silica veinlets cut the Ths, and it has many vugs filled with drusy or lamellar quartz. Ths contains numerous silicified wood fragments and traces of pyrite, marcasite, and limonite. Ths is a host for the mineralization. Thickness: Up to 30 feet.

Thrb

HYDROTHERMAL RHYOLITE-BRECCIA - Light brown to pink or gray, holocrystalline, silicified, predominately matrix-supported and also clast-supported hydrothermal rhyolite-breccia.

Matrix-supported breccia has rounded to subangular clasts of Tpr, Tur, Ths and minor Tl in a porphyritic-aphanitic felsic matrix with several percent phenocrysts of quartz and sanidine, minor muscovite, and up to 3% pyrite and marcasite. Clast-supported breccia contains angular to subrounded clasts of Ths, Tpr, and Tur enclosed by a thin coating of light yellow silica. Silicified wood fragments are common in Thrb, and 1-2% iron oxide occurs throughout the rock. Thrb is a major host for the mineralization.

Tvs

VOLCANICLASTIC SEDIMENT - Light brown to medium gray, or green, fine- to coarse-grained volcaniclastic sediment with varying amounts of glass (10-70%), mostly as glass shards, and up to 80% crystals and fragments of plagioclase or sanidine, and minor quartz. Tvs shows local graded bedding and a few percent lithic fragments up to 5 cm in size.

Tur  
Tur(fb)

UPPER RHYOLITE - White, gray, and orange, conspicuously flow-layered rhyolite, or a purple, siliceous, autobrecciated rhyolite. Tur contains up to 4% phenocrysts of quartz and sanidine in an aphanitic, felsic matrix with 10+% devitrification spherulites. Quartz veinlets cut the Tur. The flow-breccia phase (fb) has rounded to subangular clasts with layers of quartz, sanidine and glass. Thickness: Up to 225 feet.

Tpr

PORPHYRITIC RHYOLITE - White, gray, tan, and pink, holocrystalline rhyolite with 7-22% euhedral to anhedral phenocrysts of quartz, sanidine, and minor biotite and muscovite in an aphanitic felsic matrix. Tpr locally contains up to 20% devitrification spherulites, is locally flow layered, locally brecciated, commonly silicified, and contains sparse quartz veinlets and rare argillite alteration. Tpr is a major host for the mineralization. Thickness: Up to 300 feet.

Tl

LATITE (Undifferentiated) - Black, gray, pink, green, tan, brown, or white, commonly holocrystalline, locally glassy, spherulitic latite with a few percent phenocrysts in an aphanitic matrix with flow layering. The phenocrysts are anhedral quartz, sanidine, and plagioclase in an aphanitic, felsic matrix. Tl is locally both brecciated and silicified. Illite occurs locally, and quartz veinlets cut the rock. Thickness: Up to 300 feet.

Tlb

LOWER BASALT - Black to gray, commonly holocrystalline and porphyritic basalt with less than 10% medium- to fine-grained euhedral to subhedral phenocrysts of labradorite, augite, and minor olivine in a matrix which is fine- to medium-grained, ophitic to subophitic or intergranular with plagioclase, augite, olivine, magnetite, carbonate and minor glass. Tlb locally contains a few percent hematite. Thickness: Up to 600 feet.

TERTIARY

MIOCENE

• MILESTONE AREA

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
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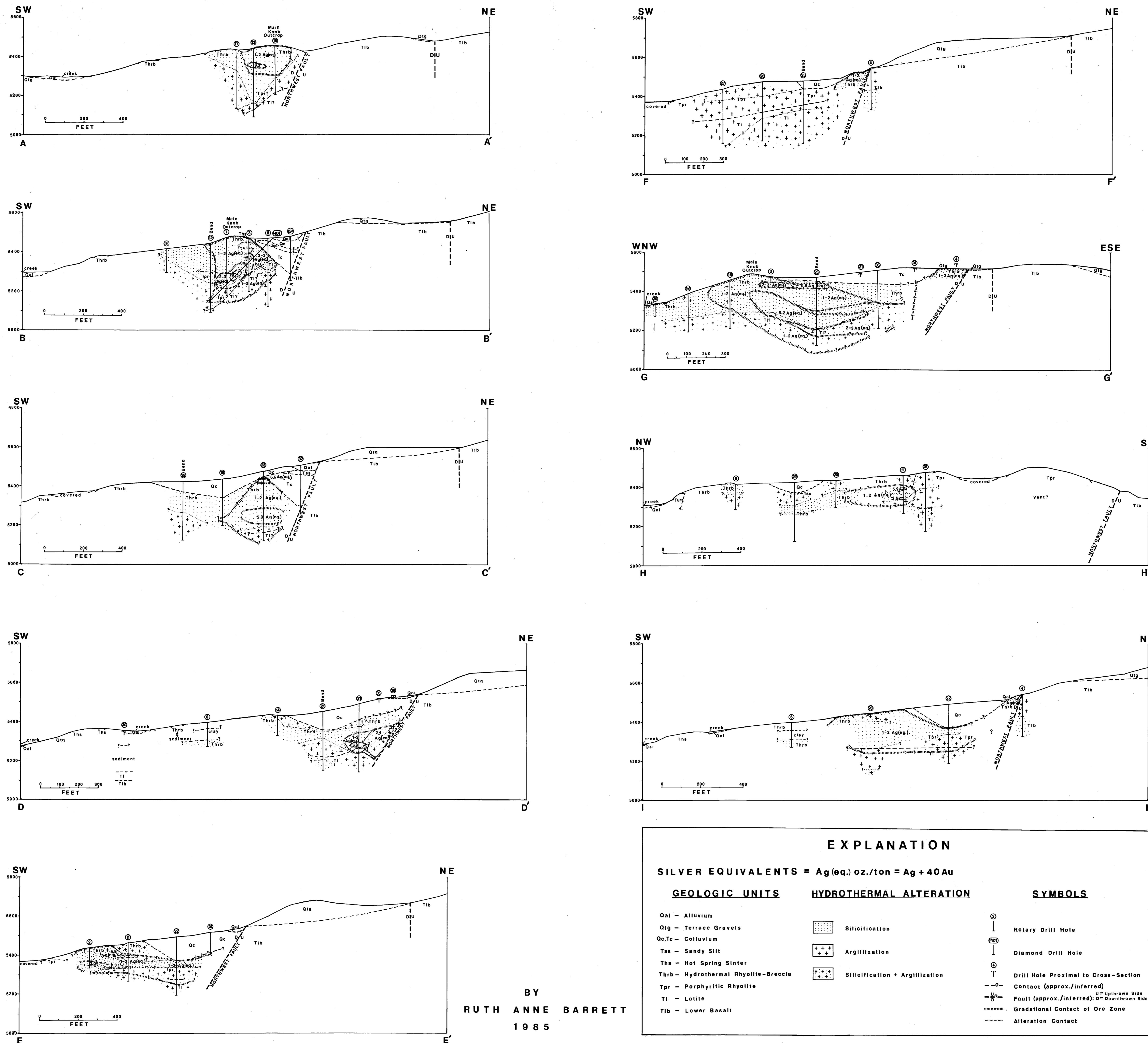
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# THE GEOLOGY OF THE MILESTONE AREA, Owyhee COUNTY, IDAHO

BY RUTH ANNE BARRETT

# CROSS-SECTIONS OF THE MILESTONE Ag-Au DEPOSIT, SHOWING THE ORE ZONES, LITHOLOGY, AND HYDROTHERMAL ALTERATION, Owyhee County, Idaho



EXPLANATION			
SILVER EQUIVALENTS = Ag(eq.) oz./ton = Ag + 40Au	GEOLOGIC UNITS	HYDROTHERMAL ALTERATION	SYMBOLS
	Qal - Alluvium	Silicification	① Rotary Drill Hole
	Otg - Terrace Gravels		② Diamond Drill Hole
	Qc,Tc - Colluvium		T Drill Hole Proximal to Cross-Section
	Tss - Sandy Silt	Argilization	-? Contact (approx./inferred)
	Ths - Hot Spring Sinter		--> Upthrown Side
	Thrb - Hydrothermal Rhyolite-Breccia	Silicification + Argilization	--> Downthrown Side
	Tpr - Porphyritic Rhyolite		— Fault (approx./inferred)
	Tl - Latite		— Gradational Contact of Ore Zone
	Tib - Lower Basalt		— Alteration Contact

NERCO MINERALS COMPANY

# LOG OF THE GEOLOGY AND MINERALOGY OF THE MS-1 CORE, MILESTONE DEPOSIT, Owyhee County, Idaho

**PLATE 3**