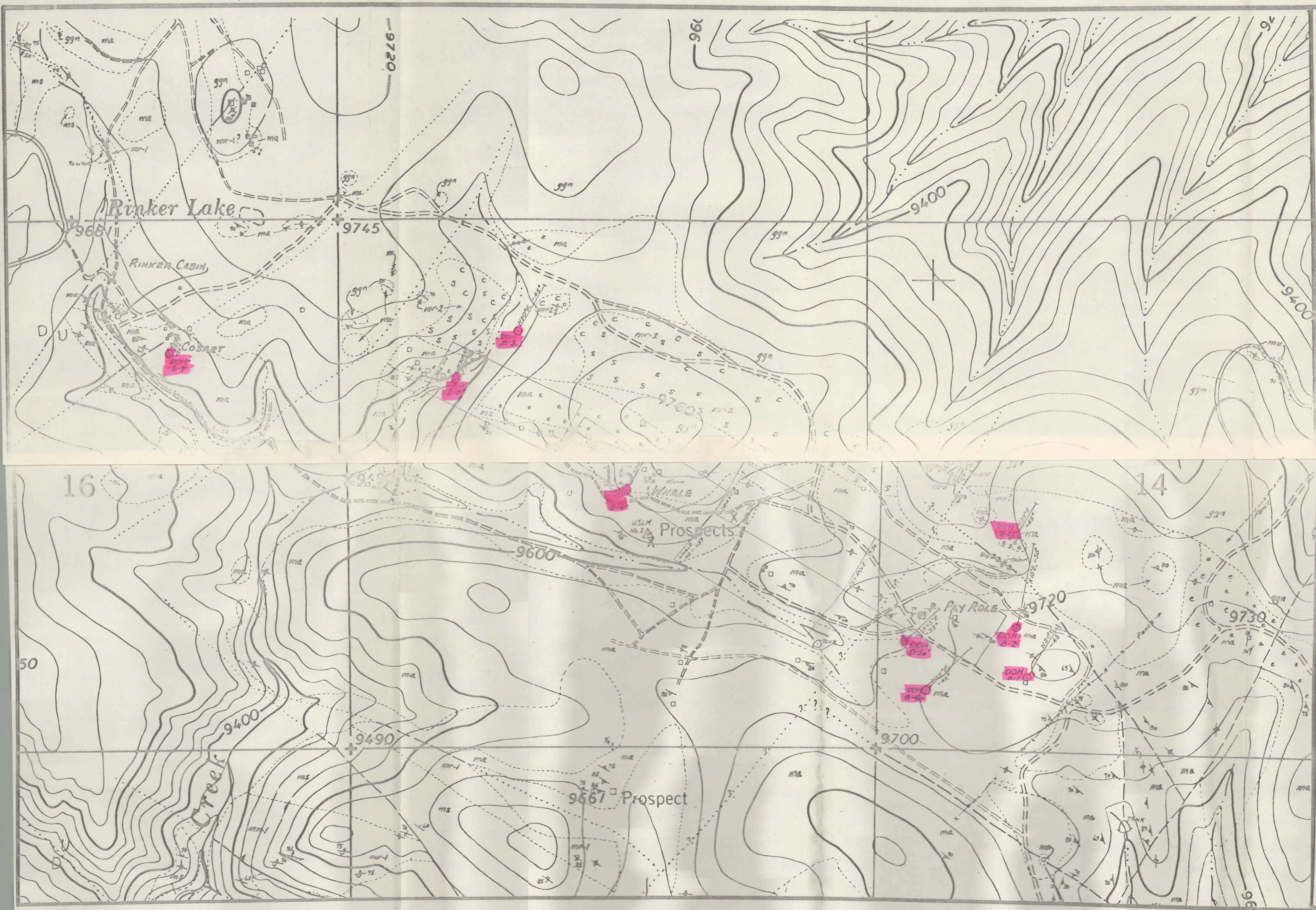


EXPLANATION:

ROCK TYPES

TERTIARY-QUATERNARY

▭	ALLUVIAL COVER

TERTIARY

Tqm	QUARTZ MONZONITE: FINE-GRAINED, SILICEOUS, WITH SERICITE ON FRACTURES ALSO INCLUDES MINOR SERICITIC APLITE

PRECAMBRIAN (p€ OMITTED FROM SYMBOLS)

	kqu	UPPER QUARTZITE MEMBER OF THE KIAWA MT. FORMATION: MASSIVE, VITREOUS ORTHOQUARTZITE. (FROM BARKER, 1958).
	qfp	QUARTZ FELDSPAR PORPHYRY OF TUSAS MT. ⫽ BASIC DIKES
	ggn	GRANODIORITIC GNEISS (INTRUDES META-ANDESITE AND METARHYOLITE)
MOPPIN GROUP	mr-2 cc ss	YOUNGER METARHYOLITE: PROBABLY A RHYOLITIC ASH-FLOW; CONTAINS ABUNDANT QUARTZ EYES IN A SERICITIC (s) AND CHLORITIC (c) SCHISTOSE MATRIX.
	ma	META-ANDESITE: INTERLAYERED SERIES OF PORPHYRITIC ANDESITE AND MASSIVE ANDESITE FLOWS, STRETCHED PEBBLE AGGLOMERATES, AND FINE-GRAINED SERICITIC, CHLORITIC GREENSCHISTS. COMMONLY CONTAINS DARK BROWN LIMONITE IN VUGS, ON FRACTURES, AND LOCALLY DISSEMINATED AFTER PIRITE. ALSO COMMONLY CONTAINS INTERLAYERED HORIZONS OF ABUNDANT DISSEMINATED MAGNETITE. LOCALLY CONTAINS MINOR AMPHIBOLE
	mr-1	OLDER METARHYOLITE: HARD, SILICEOUS, RHYOLITIC ASH-FLOW WITH SOFT, SCHISTOSE, UNWELDED BASAL ASH UNIT. CONTAINS ABUNDANT QUARTZ AND ORTHOCLASE PHENOCRYSTS IN A SILICEOUS, EUTAXITIC MATRIX. EQUIVALENT TO BURNED MT. METARHYOLITE OF BARKER (1958).
	ms	METASEDIMENTS: MOSTLY MICACEOUS, FELDSPATHIC QUARTZITE WITH LOCAL CROSS-BEDDING; ALSO STRETCHED PEBBLE, SCHISTOSE CONGLOMERATE UNITS AND A THIN, YOUNGER UNIT OF SERICITIC AND CONGLOMERATIC PHYLLITE WHICH INTERFINGERS WITH "ma". POSSIBLY EQUIVALENT TO THE PETACA SCHIST OF BARKER, 1958. OCCURS BOTH ABOVE AND BELOW "mr-1" - THE UPPER UNIT (exposed in Section 9) CONTAINS COBBLES OF "mr-1".
	mu	METAMORPHICS, UNDIVIDED (ON NW SIDE OF CUNNINGHAM GULCH). PROBABLY MOSTLY SEDIMENTARY IN ORIGIN. SEEM TO BE MORE HIGHLY METAMORPHOSED AND ARE AMPHIBOLITIC IN PART.

ALTERATION

s - SERICITIZED

c - CHLORITIZED

e - EPIDOTIZED, LOCALLY ACCOMPANIED BY SILICATION AND/OR SILICIFICATION

MINERALIZATION

(▣ = OCCURS ON DUMP, [illegible]; ⊠ OR / = OUTCROPS AT PROSPECT OR ALONG FAULT)

RED - COPPER-BEARING QUARTZ VEIN (exceptions, i.e. CaF_2, noted)

BLUE - BULL QUARTZ VEIN - BARREN (NOTE: DARKER BLUE ALONG FAULTS → UNMINERALIZED)

∴ - OXIDE COPPER DISSEMINATED IN META-ANDESITE, ALSO INCLUDES CHALCOPYRITE ON DUMPS AT PAY ROLE, BROMIDE, AND TAMPA MINES

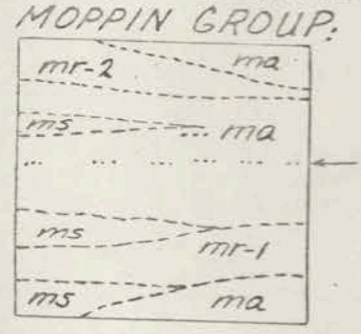
DRILL HOLES

⊙ N10°E, -10° DDH B-7

⊙ DRILLED 1977 ⊙ DRILLED 1978

DIAMOND DRILL HOLE; SHOWING SURFACE PROJECTION, BEARING, & ANGLE OF INCLINATION.

DIAGRAM OF STRATIGRAPHIC RELATIONSHIPS IN THE MOPPIN GROUP.



U.S. BORAX
EXPLORATION

GEOLOGY AND
LOCATION OF 1978 DRILL HOLES
BROMIDE PROJECT
RIO ARRIBA CO., NEW MEXICO
SCALE: 1 INCH = 500 FEET
DATE: 1-79
BY BEF

EX-78-41

MAP-2