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ARIZONA DEPARTMENT OF MINES AND MINERAL RESOURCES AZMILS DATA

PRIMARY NAME: JHUS CANYON

ALTERNATE NAMES:

COCHISE COUNTY MILS NUMBER: 790

LOCATION: TOWNSHIP 17 S RANGE 30 E SECTION 11 QUARTER W2
LATITUDE: N 31DEG 57MIN 30SEC LONGITUDE: W 109DEG 15MIN 10SEC
TOPO MAP NAME: RUSTLER PARK - 7.5 MIN

CURRENT STATUS: EXP PROSPECT

COMMODITY:
COPPER SULFIDE

BIBLIOGRAPHY:
ADMMR JHUS CANYON FILE

JHUS CANYON

COCHISE COUNTY

HEM WR 5/13/88: A report on Cochise County new MILS #790, Jhus Canyon was added to the Department's files. The prospect was partially explored in the late 60's and is reported as a disseminated copper sulfide occurrence.

JHUS CANYON

COCHISE COUNTY, ARIZONA

MILS 790

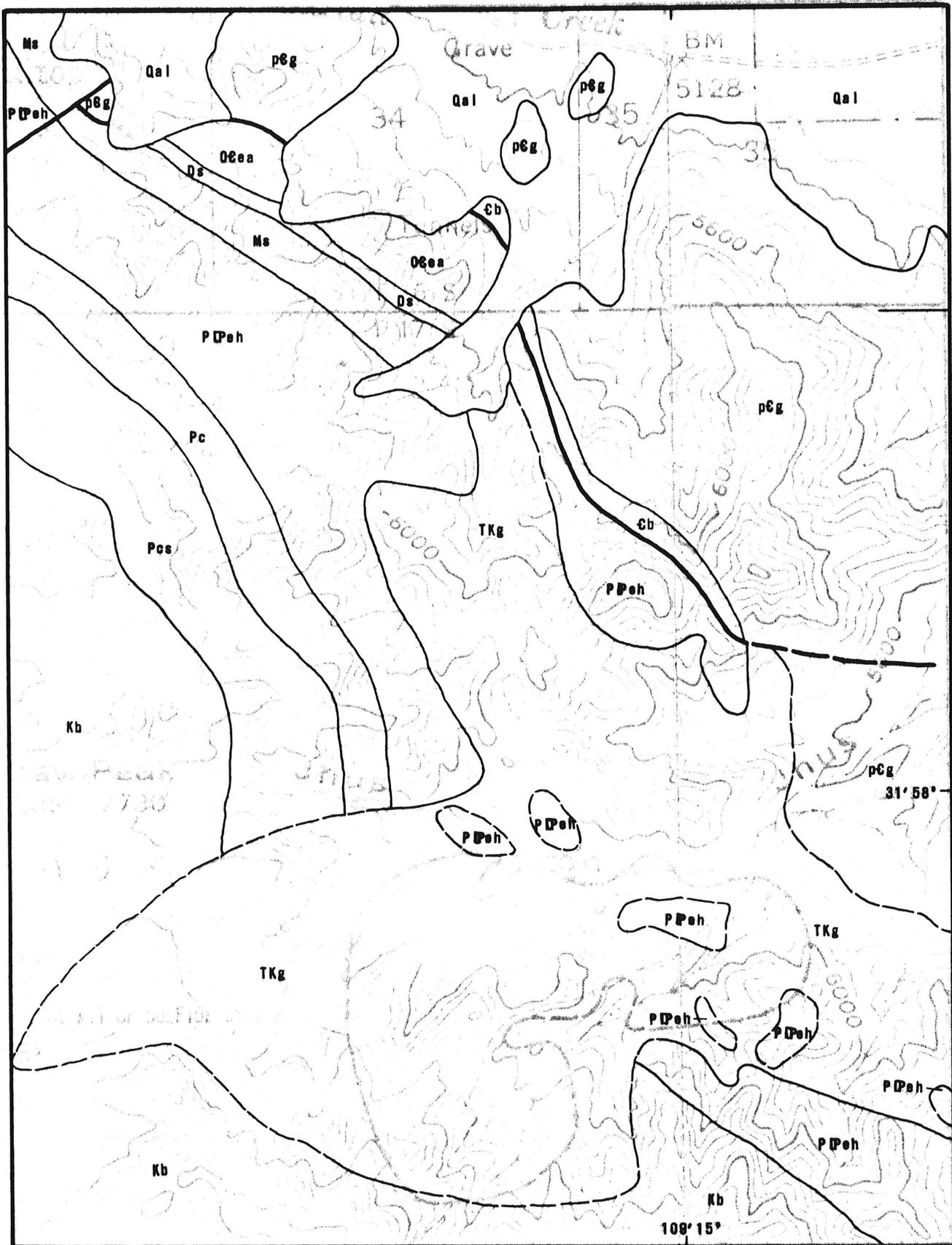
JHUS CANYON
COCHISE COUNTY, ARIZONA

EXPLANATION

Qal	Alluvium	}	QUATERNARY
TKg	Granodiorite	}	TERTIARY AND CRETACEOUS
Kb	Bisbee Group	}	CRETACEOUS
Pcs	Concha and Scherrer Formations	}	PERMIAN
Pc	Colina Limestone	}	
PPeh	Earp and Horquilla Formations	}	PERMIAN AND PENNSYLVANIAN
Ms	Escabrosa Limestone	}	MISSISSIPPIAN
Ds	Martin Formation	}	DEVONIAN
O€ea	El Paso and Abrigo Formations	}	ORDOVICIAN AND CAMBRIAN
€b	Bolsa Quartzite	}	CAMBRIAN
p€g	Granite	}	PRECAMBRIAN

 fault

R30E

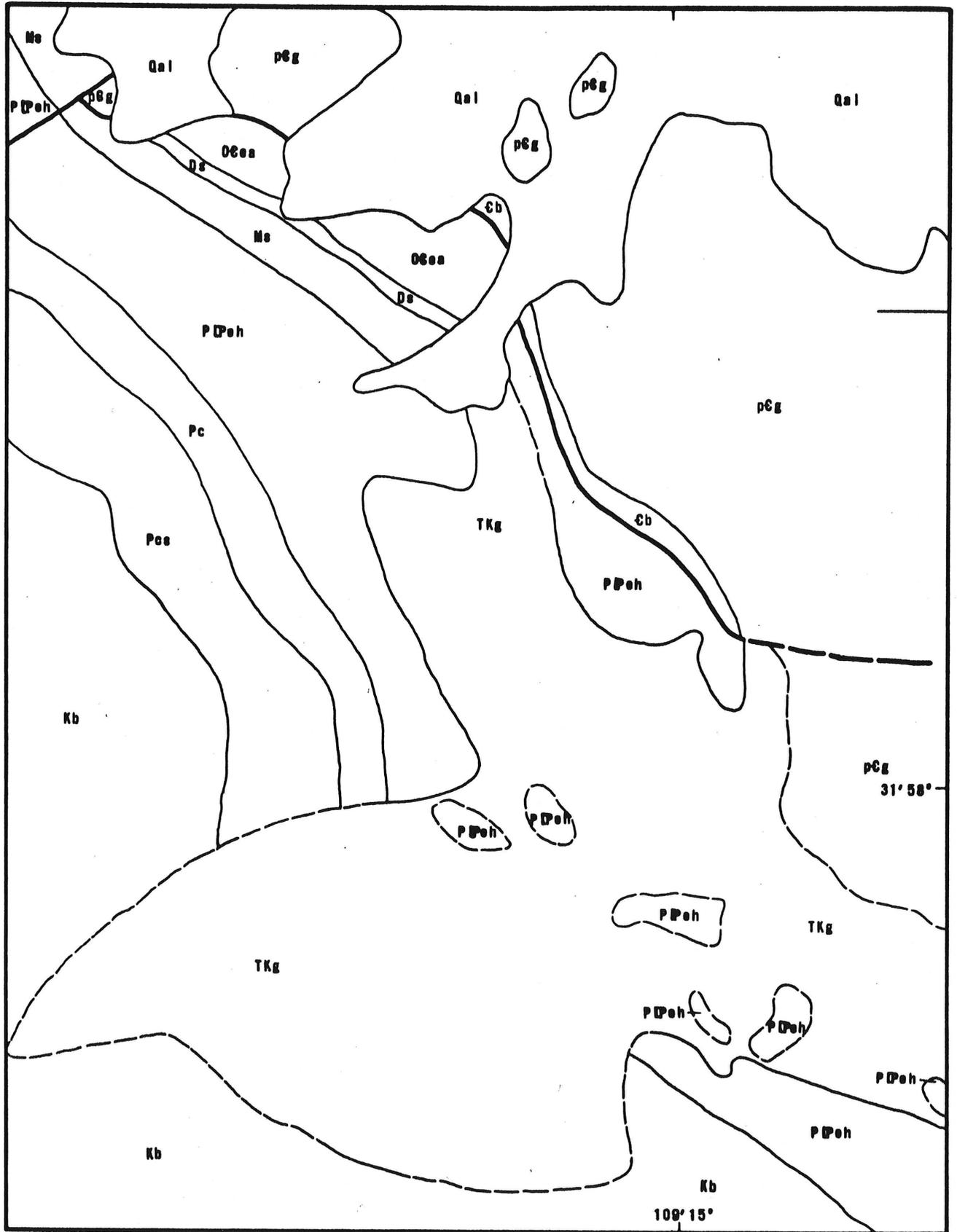


McRae, O.M., 1967, Geology of the Jhus Canyon, Cochise County, Arizona: BCNC, SW Dist.

GEOLOGIC MAP OF THE JHUS CANYON AREA COCHISE COUNTY, ARIZONA

Scale 1" = 2000'

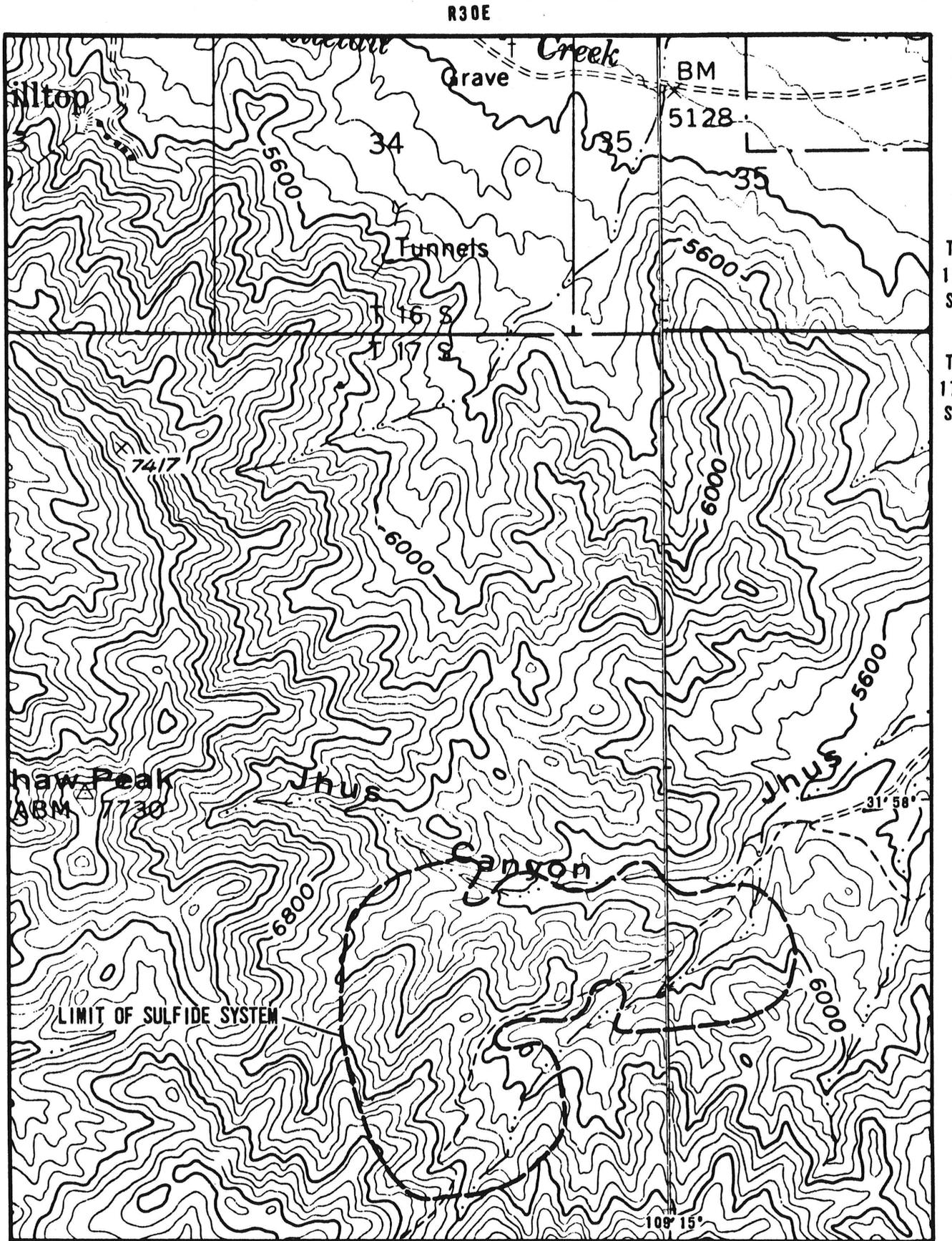
R30E



McRae, O.M., 1987, Geology of the Jhus Canyon, Cochise County, Arizona: BCNC, SW Dist.

GEOLOGIC MAP OF THE JHUS CANYON AREA COCHISE COUNTY, ARIZONA

Scale 1" = 2000'



Topography from the Chiricahua Peak and Portal quadrangles, Arizona: USGS, 1958.

**TOPOGRAPHIC MAP OF THE JHUS CANYON AREA
COCHISE COUNTY, ARIZONA**

Scale 1" = 2000'

PORPHYRY COPPER PROBABILITY STUDY
OCCURRENCE DESCRIPTION OUTLINE

I. SULFIDE SYSTEM

A. Name Jhus Canyon County Cochise State Arizona*B. Length: Exposed 7000 ft; Extrapolated 8000 ft.*C. Width: Exposed 4000 ft; Extrapolated 6000 ft.*D. Azimuth of Elongation 65 °; Sulfide Concentration 3-5 Vol. %

*E. Capping (circle one for each)

Oxidized Capping	yes	<u>no</u>	shallow	no data
Leached Capping	<u>yes</u>	no	"	no data
Intensity in Outcrop	subtle	apparent	obvious	no data
Color	red-brown	maroon	<u>bleached-yellow</u>	no data

*F. Absolute Age (m. y.); Min. _____; Max. _____; Average 28.9
Relative Age (bracket): _____

*G. Drillholes

1. Maximum Depth _____ ft.

2. Comments This is a deep PCD type drilling target.In 1968, Duval may have drilled deep hole in stock.In 1967, Superior Oil drilled for skarns along the southern contact.*H. Geologic Setting (age, host rocks, intrusive relationships, oldest to youngest formations, contacts, alteration halo to core zone).

(See back of page)

I. Reference:

McRae, O. M., 1967, Evaluation of the Jhus Canyon area, Cochise County, Arizona: BCMC Rept., June 9, 1967.

Seager, W. R., 1969, Jhus Canyon pluton, Cochise Co., Arizona:
BCMC-SWD Rept., Oct. 1969, p. 8, geol. map 1"=1,000'; 2,000'

*Note: See Rules and Conventions.

Geologic Setting

Precambrian granite porphyry, amphibolites and volcanics are overlain by Paleozoic sediments. Paleozoic formations locally mineralized are: El Paso, Earp, Horquilla, Colina, Concha, and Sherer. These are overlain by members of the Cretaceous Bisbee Group and andesitic volcanics. The aforementioned rocks are intruded by T-K monzonite porphyry dikes and sills and a monzonite-rhyolite intrusive complex, the Jhus Canyon stock. Nearby cover consists of Tertiary volcanic rocks and volcanic-derived sediments and alluvium.

Alteration-Mineralization

The horizontal distribution of alteration types is not obviously zoned, but can be mapped as four types. Most of the altered part of the stock is characterized by discontinuous epidote-chlorite, argillic and quartz-sericite alteration controlled by fractures. This is partly surrounded by quartz-sericite alteration and patches of argillic alteration with much quartz flooding. The most distant recognizable alteration consists of chlorite-epidote, mostly weak and confined to fractures and mafics.

A crude vertical zoning of alteration types is more apparent. From lowest to highest zones they are: unaltered biotite quartz-monzonite and weak chlorite-epidote are overlain by a complex distribution of chlorite-epidote, argillic and quartz-sericite alteration. Variations in alteration intensity appear related to rock type, intrusive contacts, and fracture zones.

Sulfide System Name Jhus Canyon

II. Diagnostic Reconnaissance Characteristics

A. District Prospect Zoning Outside of Sulfide System

1. Prospects/Mines (Hilltop Mine Arizona Bureau Mines 1942 Report)

Metal/Type	Min. Diam. (feet)	(M) Mines (P) Prospects	Rock Types	Deposit Types
Cu				
Pb-Zn	2000	M/P	Paleozoic sediments	skarn assoc with monz. por. dikes
Ag-Au	8000	M	" "	
Mn				
Other				
Other				

B. Dike Swarms

Rock Types	Qtz & Latite porphyries			
Length (ft.)	10,000			
Width (ft.)	4,000			
Azimuth (°)	135			
Age	mineralization			
* Spatial Rel.	crosscut stock & country rock			
Contacts	(sharp with			
Other	qtz-sericite altm.			

*C. Important Regional Structures (other than dike swarms)

Type	Reverse Fault		
Length	24,000		
Azimuth (°)	140 (varies)		
Recognition Factors	PE against Permian		
Age	Early Tertiary & Premineral		
Spatial Rel.	Jhus Canyon stock cuts fault		
Contacts	sharp		
Other	may have controlled stock emplacement		

*D. Other Reconnaissance: (See back of page)

Reconnaissance

The Jhus Canyon stock lies at the intersection of the Cananea-Bisbee-Lordsburg-Tyrone-Santa Rita alignment of copper-bearing intrusives and a major structural uplift (the Chiricahua Mountains). The stock consists of at least five separate phases. South of Jhus Canyon, middle to late Tertiary ignimbrites are tilted southward $10-20^{\circ}$. It is reasonable to assume that the Jhus Canyon pluton has been tilted at least that much since it was emplaced.

An extensive base metal aureole is documented by W. Saeger, 1969. The most intense area of copper-moly mineralization is in a hornblende biotite monzonite porphyry surrounded by weak scattered copper mineralization with 3 to 5% pyrite surrounded by a halo of weak (0.02 to 0.08% Cu) copper. Progressively outward are wide zones of Cu-Pb-Ag and Pb-Zn, Pb-Ag.

The late Oligocene age (28.9 ± 0.9 m. y.) of this porphyritic stock makes other similar areas, once thought to be Postmineral in age, more interesting.

Sulfide System Name Jhus Canyon

III. Center of Mineralization (zone of best copper)

A. Name Jhus Canyon Stock

*B. Copper Mineralization

1. Type	*%	Av. Grade	Rock Type	*Other Data
a. Primary	100		biotite qtz monz.	disseminated
b. Enriched				
c. Skarn (replacement)				
d. Oxide				
e. Mixed				

2. Current Mineral Inventory

a. Tons no data; Av. Grade _____%; Cutoff _____%

b. Other Credits _____

3. Past Production

a. Tons none; Av. Grade _____%; Cutoff _____%

b. Other Credits _____

C. Cover

1. 100 % Exposed at time of discovery

2. Projected Post Mineral Cover

a. Thickness (ft.) none

* b. Formations _____

* c. Estimated Δ elevation of base of cover to top of cc blanket (ft.) _____

(no cc)

3. Premineral Cover

a. Thickness (ft.) none

b. Formations _____