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ANN MASON—COPPER

ITEM 45

Alternate names: None

Commodities: Cu, Mo

LOCATION-OWNERSHIP

County Lyon.
 Elevation 1,829 m.
 Domain BLM administered.

General location About 58 km southeast of Carson City.
 Meridian Mount Diablo.
 Tract Sec. 13, T 13 N, R 24 E.
 Latitude 38°59'03" N.
 Longitude 119°14'47" W.

Owner The Anaconda Minerals Co., Denver, CO (a wholly owned subsidiary of Atlantic Richfield Co., Denver, CO)(1984).

GEOLOGY

Type of ore body Disseminated, porphyry copper.
 Origin Magmatic, hydrothermal.
 Shape of ore body Irregular.
 Ore controls Dikes, faulting.
 Plunge and dip of mineralized zone. West: gentle.
 Age of mineralization ... 168 million yr.
 Mineralized zone average dimensions, m:
 Length 2,360.
 Thickness +530.
 Depth 90 to +240.
 Mineral names Chalcopyrite, pyrite, bornite, molybdenite, goethite, limonite, chrysocolla, hematite, quartz, K-feldspar, plagioclase, hornblende, biotite, magnetite, sphene, apatite, zircon, ilmenite, augite, chlorite, sericite.

Host formation Yerington Batholith.
 Geologic age Jurassic.
 Rock relationships Quartz monzonite, encloses ore, gangue. Porphyritic quartz monzonite, encloses ore, gangue. Granodiorite, encloses ore, gangue. Quartz monzonite porphyry dikes; highest ore grades occur near dikes.
 Tertiary volcanics; above ore on the north.
 Alteration Sodic-calcic, potassic, propylitic, sodic, sericitic.
 Size Large.

DEVELOPMENT

Current status Inactive-explored prospect.
 Type of operation Prospect.
 Year of discovery 1968.
 Discovery method Geophysical, drilling.
 Initial production No production.

PUBLISHED RESERVES-RESOURCES

Class	Quantity	Grade	Year	Reference
1..Not reported in reference	495,000,000 tons	0.40% Cu	1976	829

REFERENCES

126, 128, 453, 567, 695, 822, 829.

USGS quad maps Walker Lake, 1:250,000.
 Yerington, 15'.
 USBM sequence number 0320190169.

Comments: Copper mineralization is contemporaneous with and spatially related to a swarm of quartz monzonite porphyry dikes that intrude into granodiorite and quartz monzonite. Mineralized zone dimensions are for >0.2% Cu.

Information Circular 9035

Principal Deposits of Strategic and Critical Minerals in Nevada

By N. T. Lowe, Russell G. Raney, and John R. Norberg



UNITED STATES DEPARTMENT OF THE INTERIOR

Donald Paul Hodel, Secretary

BUREAU OF MINES

Robert C. Horton, Director