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GEOLOGICAL SOCIETY OF NEVADA  
MAY, 1986 MEETING ANNOUNCEMENT(244)  
ITEM 24**DATE:** Friday, May 16, 1986**TIME:** No-host cocktails at 6:00 pm, dinner at 7:00 pm, business meeting and speaker at 8:00 pm.**PLACE:** Travelodge, 3800 South Virginia St., Reno, NV, **GOLDEN ROOM****COST OF DINNER:** \$10.00 members, \$12.00 non-members. **PLEASE BRING CHECK OR EXACT CHANGE****SPEAKER:** Robert E. Thomason, Project Geologist - Paradise Peak Mine, FMC Corporation,  
5011 Meadowood Way, #200, Reno, NV 89502.**TOPIC:** Geology of the Paradise Peak Ore Deposit

**ABSTRACT:** The Paradise Peak deposit area is composed of Tertiary volcanic rocks of andesitic to rhyolitic composition emplaced as lava and pyroclastic flows. Silver and gold anomalies are associated with epithermal hot spring alteration. Higher precious metal values occur in silicified rhyolite tuffs surrounded by argillic alteration.

Metallized rock crops out at the top of a low rounded hill which is approximately 2,500 feet across at its base. The hill has about 275 feet of relief being surrounded by alluvium. The ore zone is approximately 1400 x 600 feet with thicknesses up to 400 feet. Drilling indicates a fairly shallow consistent southeast dipping ore zone. Mineable ore reserves were estimated at approximately 12 million tons ore grading 0.097 oz/T gold and 3.53 oz/T silver.

Stratigraphic units fall into three groups: an older andesite group, a series of felsic tuffs, and a group of younger andesites. The Composite Tuff of the felsic group is the main ore host.

Silver at Paradise Peak occurs as the silver halide, cerargyrite, less commonly as the silver sulfide, acanthite, and as native silver. Gold occurs as relatively pure native gold. Closely associated minerals include pyrite, bismuthian stibnite, barite, cinnabar, native sulfur, orpiment, and realgar.

Chemical and mineralogical changes produced in the host rocks by the mineralization and related processes may be classified as silicification, pyritization, and intermediate to advanced argillization. Of these, silicification is most closely related to gold-silver mineralization.

The high-level hydrothermal system that formed the Paradise Peak deposit is closely related to the Miocene "Walker Lane" structural regime. The close association of mineralization with the felsic volcanism suggests that the two processes were related.

**NOTES:** 1. Several months ago, Lynne Volpi conducted a poll of a sample of the GSN membership to write a paper for her Business Statistics class. She specifically was interested in comparing perceptions of the past performance, current ability, and future business potential of the minerals exploration industry as a function of the age, sex, job status, and education of Reno-based respondents. Those interested in reviewing her paper may do so at the May GSN dinner meeting.

2. Progress Report Volume 2, No. 1, Pacific Legal Foundation - Defense of Natural Resource Development is available at no cost from James S. Burling, Attorney, PLF, phone: 916-444-0154.

3. The Society of Economic Paleontologists and Mineralogists is advertising its Third Annual Mid-year Meeting, entitled, "Sedimentary Deposits '86, From Rift to Uplift", to be held Sept. 26-28, 1986 in Raleigh, North Carolina. Contact Chuck Nittrouer, phone: 919-737-3711.

4. An International Congress on the geology, structure, mineralization and economics of the Pacific Rim will be held in Queensland, Australia, August 26-29, 1987. For information phone: 617-371-7900.

**PLEASE DETACH AND RETURN RESERVATION FORM BELOW**

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Geological Society of Nevada - May 16 1986 Meeting/Dinner Reservation

NAME

AFFILIATION

PHONE

We must have your reservation by 12 noon, Monday, May 12, 1986, and we must have cancellation of any reservations by 12 noon, Wednesday, May 14, 1986 to avoid being billed for dinner. Phone reservations will be accepted at 329-5609, or you may return this form to: M. Fiannaca, Secretary, G.S.N., c/o Lacana Gold Inc., P.O. Box 11305, Reno, NV 89510.

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