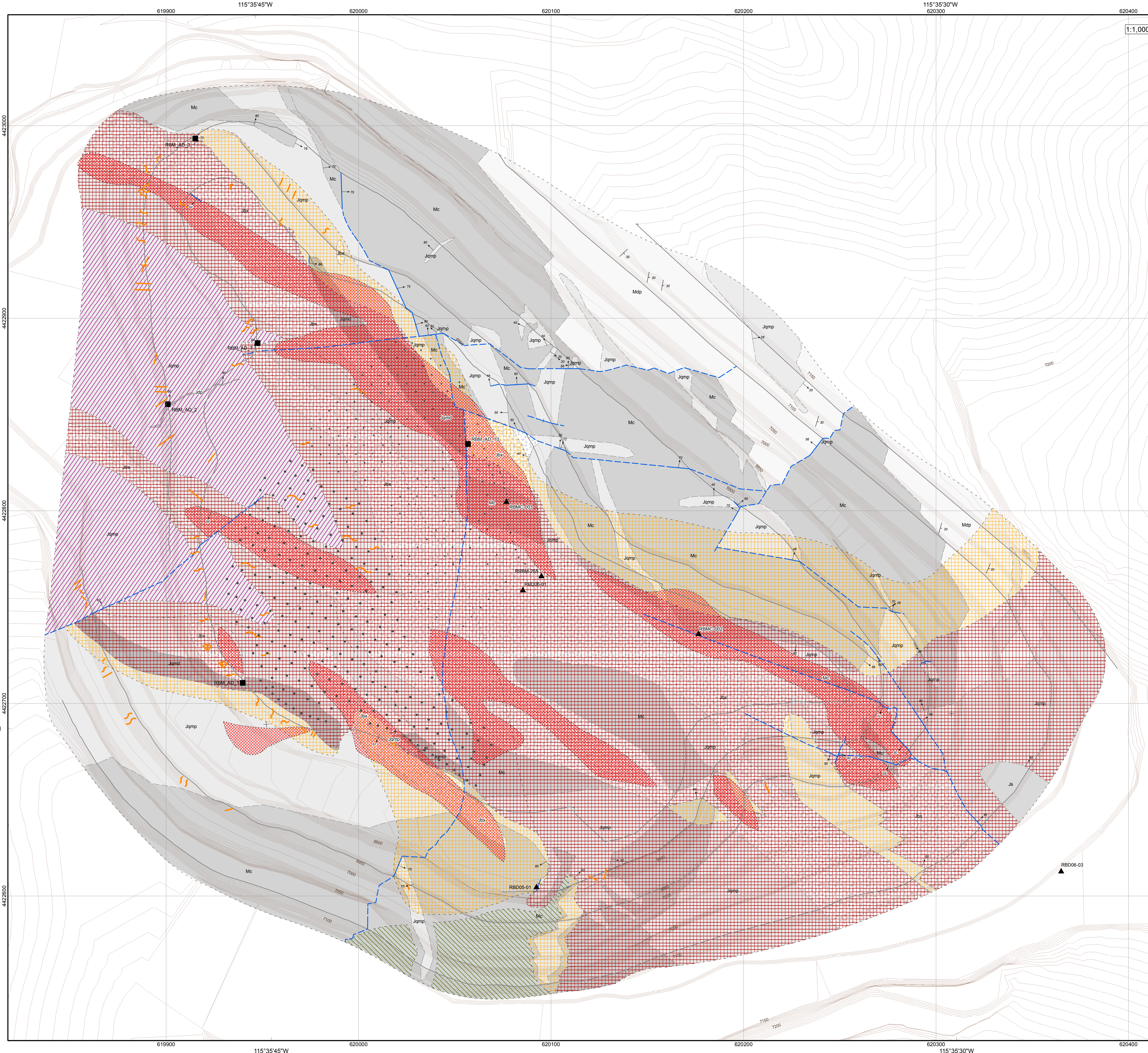


PRELIMINARY GEOLOGIC MAP OF THE RBM PIT, BALD MOUNTAIN MINE, WHITE PINE COUNTY, NEVADA

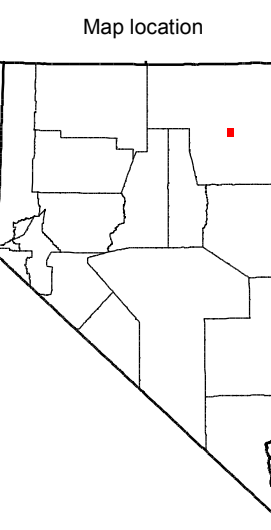
Plate 2 of 2

HYDROTHERMAL ALTERATION AND MINERALIZATION

Daniel Pace
2015



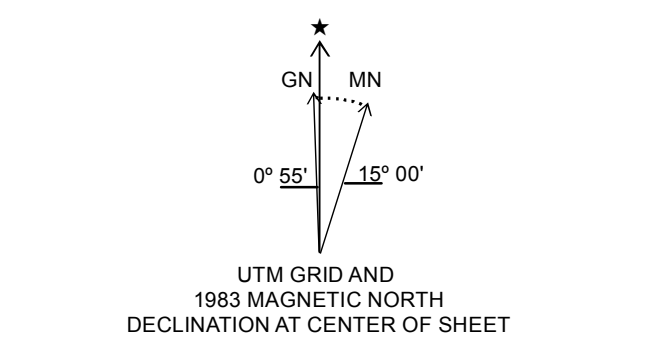
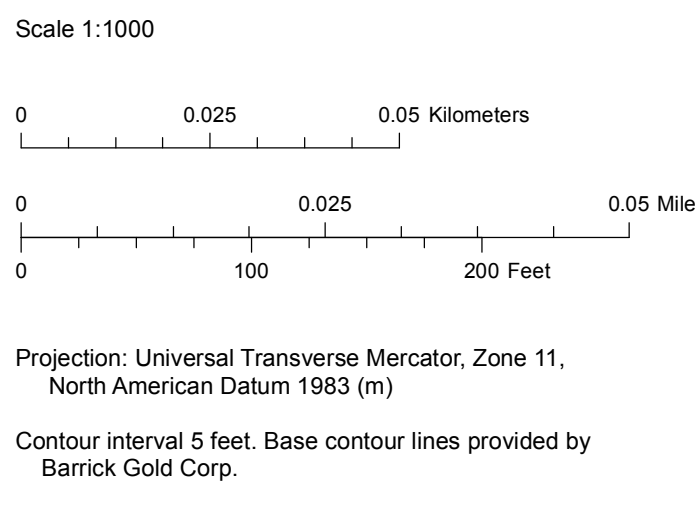
- Legend:**
- Diorite Porphyry (Jurassic)** A 0.25 m-wide east-west-striking, steeply north-dipping dike that cuts the quartz monzonite porphyry plug on the west side of the RBM pit. Dikes also cut quartz monzonite dikes in drill core. Contains up to 10% plagioclase, 5-7% hornblende, and 3% biotite phenocrysts, as well as up to 5% rounded quartz xenocrysts, set in a groundmass of fine-grained sub-aligned feldspar laths, hornblende needles, and quartz. LA-ICPMS date on zircon yielded age of 161.8 ± 2.9 Ma (Pace, 2009).
 - Magmatic hydrothermal breccia (Jurassic)** Northwest-striking, steeply northeast-dipping breccia bodies that cut quartz monzonite porphyry and quartz monzonite dikes. Matrix-supported, composed of 30-60% subangular to subrounded fragments up to a meter in diameter in an altered, finely milled matrix of quartz, kaolinite, and sulfides. Silicified rock and quartz veins are the most abundant fragment types.
 - Quartz monzonite porphyry (Jurassic)** North- to northwest-striking fine-grained equigranular dikes up to 15 m thick that cut quartz monzonite porphyry. Primary mineralogy everywhere destroyed by hydrothermal alteration. Up to 30% quartz, which could be largely hydrothermal in origin, is present as ~0.2 mm anhedral quartz crystals in a matrix of kaolinite. Similar dikes intercepted in drill holes south of the RBM pit contain up to 20% biotite. LA-ICPMS date on zircon yielded age of 163.9 ± 3.3 Ma (Pace, 2009).
 - Garnet skarn (Jurassic)** Andraditic garnet skarn. Interstices between garnet are composed of retrograde quartz, chlorite, calcite, and pyrite variably oxidized to limonite.
 - Quartz monzonite porphyry (Jurassic)** Plug-like body with a diameter of at least 300 m with associated dikes and sills composed of 5-15% partially resorbed quartz, 10-30% feldspar, 1-5% biotite, and sparse hornblende phenocrysts set in a fine-grained groundmass of quartz and feldspar. Hydrothermal alteration commonly masks original igneous mineralogy. LA-ICPMS dates on zircon yielded ages of 163.5±5.8 Ma and 163.0±3.4 Ma (Pace, 2009).
 - Diamond Peak Formation (Mississippian)** Predominantly sandstone with interbeds of siltstone. Sandstone ranges from white quartzite to poorly-sorted, medium-grained heterolithic arenites containing conspicuous chert clasts. Contact with underlying Chairman Shale is gradational and was mapped by the last occurrence of coarse-grained sandstone lenses with chert clasts.
 - Chairman Shale (Mississippian)** Pale white to tan, siltstone that is locally metamorphosed to quartz-albite-epidote hornfels and variably hydrothermally leached and silicified.
- HYDROTHERMAL ALTERATION AND MINERALIZATION**
- >0.01 opt gold
 - Silicic
 - Potassic
 - Hornfels
 - Advanced argillic
 - Undivided weak argillic, sericitic, and supergene argillic
- Quartz veins**
- Planar
 - Irregular
 - Breccia clasts with irregular quartz veins truncated along clast margins
- Contact** Solid where certain and location accurate, dashed where approximate. Arrow showing dip of bedding contact.
- Normal fault** Solid where certain and location accurate, dashed where approximate. Arrow showing dip of fault.
- Benchmarks** Mapped benchmarks, solid where certain and location accurate
- Strike and dip of bedding**
- Inclined
- Location of logged drill holes**
- RBMC-002
- Location of dated sample**
- RBM-AD-5
- Location of blast holes by elevation (ft)**
- 6825
 - 6800
- Suggested citation:**
Pace, D., 2015, Preliminary geologic map of the RBM pit, Bald Mountain Mine, White Pine County, Nevada; Nevada Bureau of Mines and Geology Open-File Report 15-1, scale 1:1000.
- References:**
Pace, D. W., 2009, Relationship between magmatism and mineralization in the RBM gold deposit, White Pine County, Nevada; Unpublished Master's thesis, University of Nevada Reno, 172 p.
- Acknowledgments**
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Adjoining 7.5' quadrangle names

1	2	3
4	5	6
7	8	9

- Walker Canyon
- Sherman Mountain
- Station Butte
- Cold Creek Ranch NW
- Big Bald Mountain
- Tognini Spring
- Cold Creek Ranch
- Mooney Basin Summit
- Long Valley Slough



Nevada Bureau of Mines and Geology
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College of Science
University of Nevada, Reno

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DRAFT
Preliminary geologic map
Has not undergone office or field review

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