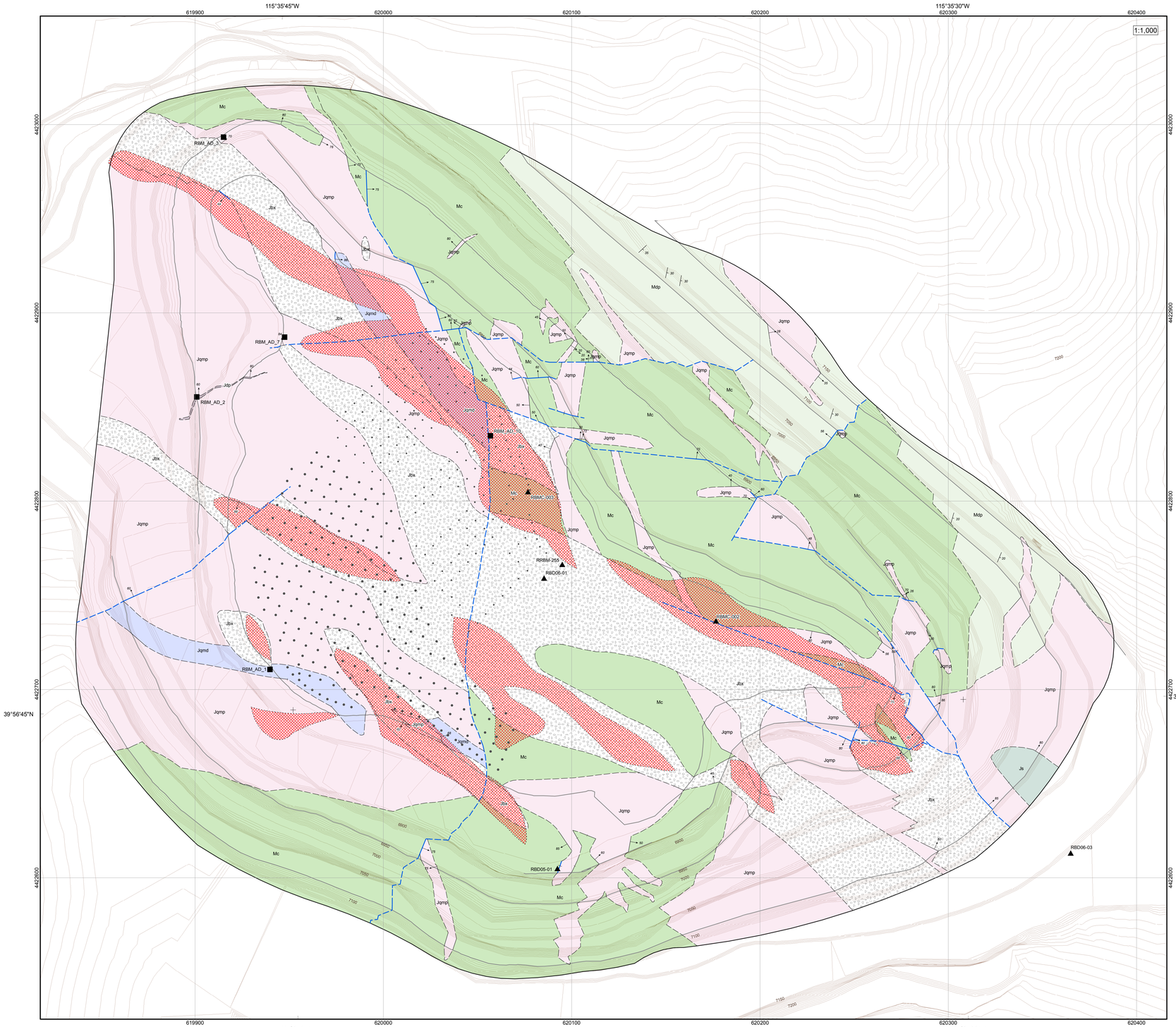

PRELIMINARY GEOLOGIC MAP OF THE RBM PIT, BALD MOUNTAIN MINE, WHITE PINE COUNTY, NEVADA

Plate 1 of 2

GEOLOGY

Daniel Pace
2015

Jdp **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 monzodiorite 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).

Jbx **Magmatic hydrothermal breccia (Jurassic)** Northwest-striking, steeply northeast-dipping breccia bodies that cut quartz monzonite porphyry and quartz monzodiorite 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 veinlets are the most abundant fragment types.

Jqmd **Quartz monzodiorite (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).

Js **Garnet skarn (Jurassic)** Andraditic garnet skarn. Interstices between garnet are composed of retrograde quartz, chlorite, calcite, and pyrite variably oxidized to limonite.

Jqmp **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±6.8 Ma and 163.0±3.4 Ma (Pace, 2009).

Mdp **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 Chainman Shale is gradational and was mapped by the last occurrence of coarse-grained sandstone lenses with chert clasts.

Mc **Chainman Shale (Mississippian)** Pale white to tan, siltstone that is locally metamorphosed to quartz-albite-epidote hornfels and variably hydrothermally leached and silicified.

GOLD MINERALIZATION

>0.01 opt gold

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.

Benches Mapped benches, 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_3

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.

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Map location

Adjoining 7.5' quadrangle names

1	2	3
4	RBM	6
7	8	9

1 Walker Canyon
2 Sherman Mountain
3 Station Butte
4 Cold Creek Ranch NW
5 Big Bald Mountain
6 Tognini Spring
7 Cold Creek Ranch
8 Mooney Basin Summit
9 Long Valley Slough

Scale 1:1000

0 0.025 0.05 Kilometers

0 0.025 0.05 Miles

0 100 200 Feet

Projection: Universal Transverse Mercator, Zone 11, North American Datum 1983 (m)

Contour interval 5 feet. Base contour lines provided by Barrick Gold Corp.

UTM GRID AND
1983 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

Nevada Bureau of Mines and Geology
Mackay School of Earth Sciences and Engineering
College of Science
University of Nevada, Reno

Field work done in June–August, 2007
Prepared with support from Barrick Gold Corp., the Nevada Division of Minerals, and the Geological Society of Nevada

DRAFT
Preliminary geologic map
Has not undergone office or field review

Cartography and map production in ESRI ArcGIS v10.1 (ArcGeology v1.3) by Daniel Pace and Kate Ryan
Symbology per FGDC-STD-013-2006
First Edition, January 2015
Printed by Nevada Bureau of Mines and Geology

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2423