

Black Buttes Wulfenite (MoPbO₄)
by
W. Dan Hausel, 1988

On August 24, 1988, I briefly examined a lead prospect in the NE/4 sec. 26, T.50N., R.62W. of Black Buttes. This deposit occurs in a contact breccia of the Mississippian Pahasapa limestone where it has been intruded by Tertiary trachytes. The limestone breccia consists of massive galena enclosing limestone clasts. This is a classical epithermal deposit with minor fluorite, some silicification, and local jasperoid. The jasperoid in places contains small, 1/8 to 1/4 inch, glassy yellow-orange grains. One grain on sample BB8-88 tested by x-ray diffraction was identified as wulfenite, an oxide of lead and molybdenum. Additional samples were collected for gold analyses. This is the first known report of wulfenite in northeastern Wyoming.

The following samples were analyzed for specific metals (nd=not detected):

Sample no.	Description	Au (ppm)	Ag (ppm)	Cu (ppm)	Mn (ppm)	Pb (ppm)	Zn (ppm)
BB1-88	Silicified limestone with minor fluorite (N/2 N/2 sec. 26, T.50N., R.26W.).	nd	nd	85	245	185	115
BB2-88	Grab sample of fluorite-bearing carbonate from prospect pit in NE/4 sec. 26.	nd	nd	80	130	48	61
BB3-88	Jasperoid in limestone with minor fluorite	nd	110	403	2,060	2,810	8.3%
BB4-88	Jasperoid with minor terminated quartz in vug from pit in NE/4 sec. 26.	nd	nd	452	7,870	3,500	6.4%
BB5-88	Galena-bearing limestone breccia with hemimorphite	nd	200	296	3,080	0.51%	7.4%

Three samples were also collected from Mineral Hill located east of Black Buttes. These were:

Sample no.	Description	Au (ppm)	Ag (ppm)	Cu (ppm)	Mn (ppm)	Pb (ppm)	Zn (ppm)
MH1-88	Altered trachyte from Birdsnest mine dump	nd	nd	354	4,200	471	441
MH2-88	Breccia from Interocean mine dump	0.43	2.5	1,160	8,290	88	146
MH3-88	Silicified trachyte breccia from Interocean mine dump	nd	nd	622	1,940	--	100

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JAY T. ROBERTS

LABORATORY REPORT

Client Sample No.: as listed GSW Lab No.: 880920

Client: Dan Hausel Sample Description:
various ores

Analyses Requested: Au, Ag, Cu, Mn, Pb, Zn

Methods & Results:

Aqua Regia digest, Au extracted with MIBK, Atomic Absorption

Sample	Au, ppm	Ag, ppm	Cu, ppm	Mn, ppm	Pb, ppm	Zn, ppm
BB-1-88	-	-	85	245	185	115
BB-2-88	-	-	80	130	48	61
BB-3-88	-	110.	403	2060	2810	8.3 %
BB-4-88	-	-	452	7870	3500	6.4 %
BB-5-88	-	200	296	3080	5150	7.4 %
BL-18-88	0.10	8.6	2.3 %	337	368	847
MH-1-88	-	-	354	4200	471	441
MH-2-88	0.43	2.5	1160	8290	88	146
MH-3-88	-	-	622	1940		100
HU-9-88	-	6.5				
HU-8-88	-	-				
HU-7-88	-	-				
BMC*	-	-				
BLFB**	-	-				

* BMC = Bald Mt. Conglomerate
** BLFB = Bear Lodge Feldspathic Breccia

All values in ppm except where % indicated

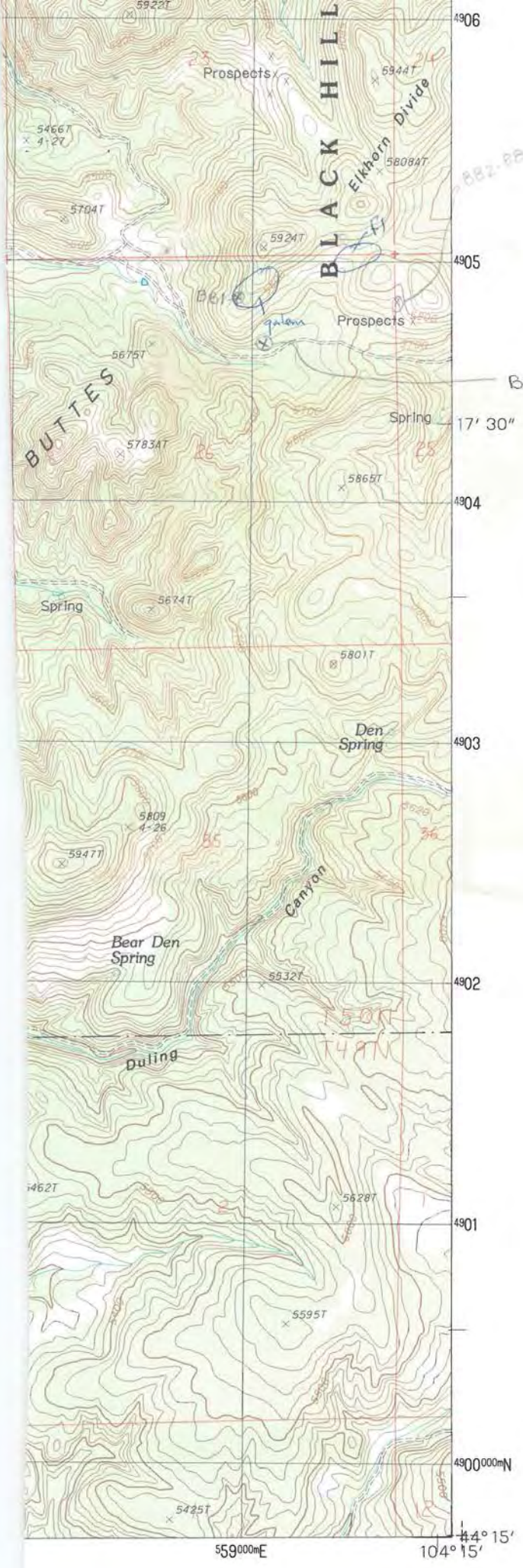
- = not detected; Au less than 0.05 ppm, Ag less than 2.0 ppm

no entry means not analysed for

Analyst: Jay Robert Date: October 31, 1988

Excess Sample: returned discarded XX store 3 months, discard store perm

GSW Lab No.: 880920



ROAD LEGEND

- Improved Road
- Unimproved Road
- Trail

- Interstate Route
- U.S. Route
- State Route

DULING HILL, WYOMING
PROVISIONAL EDITION 1984

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