

U.S. DEPARTMENT OF THE INTERIOR

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**Database for metallic mineral districts and mines of the Black Hills,
South Dakota and Wyoming**

By

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Open-File Report

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OF-92-523-B,C Database (2 diskettes)

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DISCUSSION

1083 mines in 80 metallic mineral districts have been located in the Black Hills of South Dakota and Wyoming. This database contains updated mine and location information used by the authors for a series of publications on the mineral deposits and resource potential of the Black Hills (DeWitt, Redden, and others, 1986; DeWitt, Buscher, and others, 1987a-z; DeWitt, Redden, and others, 1989; DeWitt and Wilson, 1990; Wilson and DeWitt, 1990).

Mine information is provided in several different formats, including ASCII, on the enclosed 1.44MB diskettes for easy import into virtually any database the user may chose. Data files begin with "1083MINE." followed by a two or three letter extension. The extension (eg. .ASC) indicates the database with which the file should be used. Paradox version 3.0 or 3.5 users should use the .DB file, Lotus 1-2-3 version 2.0 the .WKS, DBase version 3.0 the .DBF, Quattro version 2.0 the .WKQ, Excel version 3.0 the .XLS; other programs may require the ASCII file .ASC. The data were compiled in Paradox 3.5 and exported to the various other database programs. All data in the ASCII file are supplied in quote and comma delimited fields for easy import into virtually any other database the user may choose. The data may be imported to the Apple Macintosh through Excel version 3.0. README.TXT is a copy of this text.

Structure of database file 1083MINE.ASC if imported to Paradox 3.0 or 3.5

Field types: N numeric field
 A alpha-numeric field, number of spaces

Existing Field-#	Suggested Name for Field-#	Field Type and Length	¹ Partial Explanation
Field-1	No.	N	integers 1-1083
Field-2	Type	A6	
Field-3	Mine Name	A36	
Field-4	District	A17	
Field-5	Quadrangle	A18	
Field-6	Sec	N	section numbers 1-36
Field-7	Twp	A3	township, north (N) or south (S)
Field-8	Rng	A3	range, west (W) or east (E)
Field-9	DD latitude	N	shown to 5 decimal places
Field-10	DD longitude	N	shown to 5 decimal places
Field-11	DMS latitude	A14	
Field-12	DMS longitude	A15	
Field-13	S	A1	Y indicates there are synonyms
Field-14	Synonyms	A64	
Field-15	Company	A24	
Field-16	MRDS#1	A7	
Field-17	MRDS#2	A7	
Field-18	IC-7688	A8	entry number
Field-19	S&G	A4	page number, p000
Field-20	IC-7069	A4	page number, p000
Field-21	IC-7112	A4	page number, p000
Field-22	IC-7707	A4	entry number
Field-23	IC-8278	A3	page number, p000
Field-24	B-427	A4	page number, p000

¹Full explanation of replacement field types are on the following page

Full Explanation of suggested replacement field names

No. is the mine number. In general, these increase from northwest to southeast.

Type is the deposit type as classified in DeWitt, Redden, and others (1986) and on the accompanying table of deposit types (Table 1)

Mine Name is the common or preferred name of a mine. An = symbol indicates that the mine name is abbreviated as shown on the 7 1/2 minute map series (DeWitt, Buscher, and others, 1987a-z). A descriptor in brackets [] indicates that the mine had more than one opening plotted on the map. Each opening is given its own mine identification number.

District is the name assigned by the authors to the metallic mining district. This name may not be the same as has been commonly used for conventional and historical mining districts in the Black Hills.

Quadrangle is the 7 1/2 minute topographic map on which the mine is located.

Sec, Twp, and Rng are the locations by Section, Township, and Range of the mines as determined by the authors and plotted on 7 1/2 minute series maps of DeWitt, Buscher, and others, 1987 a-z).

DD latitude is the latitude in decimal degrees North, shown to five decimal places.

DD longitude is the longitude in decimal degrees West, shown to five decimal places.

DMS latitude is the latitude in degrees, minutes, seconds, North.

DMS longitude is the longitude in degrees, minutes, seconds, West.

S stands for synonyms, **Y** indicates that there are synonyms listed in the next entry.

Synonyms include any alternate mine names or spellings that were found in the literature or on maps (both published and unpublished). Claim names are used as synonyms only if it could be verified that the mine is on or immediately adjacent to the claim. Names that appear to be used synonymously with an owner or operator are noted in the next listing, Company.

Company is company name used in the literature that owned or owns, operated or operates the mine.

MRDS#1 is the primary entry for the mine in the U.S. Geological Survey's Mineral Resource Database System.

MRDS#2 is a secondary entry for the mine in the U.S. Geological Survey's Mineral Resource Database System.

The remaining entries are bibliographic references for the individual mines. Page numbers (p) or site numbers (letter prefix) are given if the reference contains information about the specific deposit.

IC-7688: U.S. Bureau of Mines, 1954, Black Hills mineral atlas, South Dakota (Part 1): U.S. Bureau of Mines Information Circular IC-7688, 123 p.

S&G: Shapiro, L.H., and Gries, J.P., 1970, Ore deposits in rocks of Paleozoic and Tertiary age of the northern Black Hills, South Dakota: U.S. Geological Survey Open-File Report 70-300, 235 p.

IC-7069: Gardner, E.D., 1939, Tin deposits of the Black Hills, South Dakota: U.S. Bureau of Mines Information Circular IC-7069, 78 p.

IC-7112: Guiteras, J.R., 1940, Mining of feldspar and associated minerals in the southern Black Hills of South Dakota: U.S. Bureau of Mines Information Circular IC-7112, 104 p.

IC-7707: U.S. Bureau of Mines, 1955, Black Hills mineral atlas, South Dakota (Part 2): U.S. Bureau of Mines Information Circular IC-7707, 208 p.

IC-8278: Harrier, C.M., 1966, Iron resources of South Dakota: U.S. Bureau of Mines Information Circular IC-8278, 145 p.

B-427: Allsman, P.T., 1940, Reconnaissance of gold-mining districts in the Black Hills, South Dakota: U.S. Bureau of Mines Bulletin 427, 146 p.

Table 1. Deposit Types: Abbreviated description of deposit types used for Field-2. Detailed descriptions of the deposit types are in DeWitt, Redden, and others (1986).

A:	Archean(?) and Early Proterozoic taconite iron formation
B:	Early Proterozoic uranium-gold quartz-pebble conglomerate
C:	Early Proterozoic gold-silver syngenetic stratiform
D:	Early Proterozoic gold-silver vein
E:	Early Proterozoic potassium feldspar pegmatite
F:	Early Proterozoic tin-tungsten pegmatite
G:	Early Proterozoic lithium pegmatite
H:	Early Proterozoic potassium feldspar-mica pegmatite
I:	Early Proterozoic mica pegmatite
J:	Early Proterozoic beryllium pegmatite
K:	Early Proterozoic mica or iron stratiform syngenetic
L:	Cambrian gold and silica paleoplacer
M:	Paleozoic high-calcium limestone
O:	Cretaceous roll-front uranium
P:	Quaternary bog iron
Q:	Quaternary and Tertiary gold or tin placer
R:	Cambrian residual iron
S:	Tertiary base-metal-rich vein or replacement
T:	Tertiary precious-metal-rich vein or replacement
U:	Tertiary base-metal porphyry
V:	Tertiary precious-metal porphyry
W:	Tertiary thorium-rich disseminated or carbonatite
X:	Tertiary rare-earth-element disseminated or carbonatite
Y:	Tertiary precious-metal-rich disseminated or carbonatite
Z:	Phanerozoic base- or precious-metal-rich vein
²Mn:	Phanerozoic manganese vein or bedded

²not included as deposit type in DeWitt, Redden, and others (1986).

References

- DeWitt, Ed, Redden, J. A., Wilson, Anna Burack, and Buscher, David, 1986, Mineral resource potential and geology of the Black Hills National Forest, South Dakota and Wyoming: U.S. Geological Survey Bulletin 1580, 135 p.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987a, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Sundance Northwest 7 1/2 minute quadrangle, Black Hills, Wyoming: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-A, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987b, Map of mines, prospects, and patented claims, and classification of mineral deposits in the southern one-third of the Tinton Northeast 7 1/2 minute quadrangle and the northern two-thirds of the Old Baldy Mountain 7 1/2 minute quadrangle, Black Hills, Wyoming and South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-B, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987c, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Spearfish 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-C, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987d, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Savoy 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-D, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987e, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Lead 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-E, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987f, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Deadwood South 7 1/2 minute quadrangle and the western one-third of the Deadman Mountain 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-F, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987g, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Minnesota Ridge 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-G, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987h, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Rochford 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-H, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987i, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Silver City 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-I, scale 1:24,000.

- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987j, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Hill City 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-J, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987k, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Mount Rushmore 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-K, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987l, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Berne 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-L, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987m, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Custer 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-M, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987n, Map of mines, prospects, and patented claims, and classification of mineral deposits in the northern one-half of the Iron Mountain 7 1/2 minute quadrangle and the northern one-half of the Hayward 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-N, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987o, Map of mines, prospects, and patented claims and classification of mineral deposits in the Fourmile 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-O, scale 1:24,000.
- DeWitt, Ed, Buscher, David, Wilson, Anna Burack, and Johnson, Tom, 1987p, Map showing location of mines, prospects, and patented claims, and classification of mineral deposits in the Custer 7 1/2 minute quadrangle and the northern one-half of the Pringle 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Miscellaneous Field Studies Map MF-1978-P, scale 1:24,000.
- DeWitt, Ed, Buscher, D.P., Wilson, Anna Burack, and Johnson, T.M., 1987q, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Maurice 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Open-File Report 87-261-A, one plate, scale 1:24,000.
- DeWitt, Ed, Buscher, D.P., Wilson, Anna Burack, and Johnson, T.M., 1987r, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Deadwood North 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Open-File Report 87-261-B, one plate, scale 1:24,000.
- DeWitt, Ed, Buscher, D.P., Wilson, Anna Burack, and Johnson, T.M., 1987s, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Nahant 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Open-File Report 87-261-C, one plate, scale 1:24,000.
- DeWitt, Ed, Buscher, D.P., Wilson, Anna Burack, and Johnson, T.M., 1987t, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Nemo 7 1/2 minute quadrangle and the western one-third of the Piedmont 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Open-File Report 87-261-D, one plate, scale 1:24,000.

- DeWitt, Ed, Buscher, D.P., Wilson, Anna Burack, and Johnson, T.M., 1987u, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Deerfield 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Open-File Report 87-261-E, one plate, scale 1:24,000.
- DeWitt, Ed, Buscher, D.P., Wilson, Anna Burack, and Johnson, T.M., 1987v, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Pactola Dam 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Open-File Report 87-261-F, one plate, scale 1:24,000.
- DeWitt, Ed, Buscher, D.P., Wilson, Anna Burack, and Johnson, T.M., 1987w, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Medicine Mountain 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Open-File Report 87-261-G, one plate, scale 1:24,000.
- DeWitt, Ed, Buscher, D.P., Wilson, Anna Burack, and Johnson, T.M., 1987x, Map of mines, prospects, and patented claims, and classification of mineral deposits in the Rockerville 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Open-File Report 87-261-H, one plate, scale 1:24,000.
- DeWitt, Ed, Buscher, D.P., Wilson, Anna Burack, and Johnson, T.M., 1987y, Map of mines, prospects, and classification of mineral deposits in the Edgemont Northeast 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Open-File Report 87-261-I, one plate, scale 1:24,000.
- DeWitt, Ed, Buscher, D.P., Wilson, Anna Burack, and Johnson, T.M., 1987z, Map of mines, prospects, and classification of mineral deposits in the Flint Hill 7 1/2 minute quadrangle, Black Hills, South Dakota: U.S. Geological Survey Open-File Report 87-261-J, one plate, scale 1:24,000.
- DeWitt, Ed, Redden, J. A., Buscher, David, and Wilson, Anna Burack, 1989, Geologic map and sections of the Black Hills area, South Dakota and Wyoming: U.S. Geological Survey Miscellaneous Investigations Series Map I-1910, scale 1:250,000.
- DeWitt, Ed, and Wilson, A.B., 1990, Metallic mineral districts and mines of the northern Black Hills, South Dakota and Wyoming, in Paterson, C.J., and Lisenbee, A.L., eds., *Metallogeny of gold in the Black Hills, South Dakota*: Society of Economic Geology Guidebook Series, v. 7, p. 20-30.
- Wilson, A.B., and DeWitt, Ed, 1990, Database for metallic mineral districts and mines of the northern Black Hills, South Dakota and Wyoming: U.S. Geological Survey Open-File Report 90-0424A (Program Documentation) and 90-0424B (Database and Documentation Diskette), 15 p., 1 diskette.