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MINING DISTRICTS AND MINERAL DEPOSITS OF THE BASIN AND RANGE PROVINCE OF OREGON

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MINING DISTRICTS AND MINERAL DEPOSITS OF THE BASIN AND RANGE PROVINCE OF OREGON

The mining districts and mineral deposits described here indicate the distribution of known mineralized areas in the Basin and Range province of Oregon. The descriptive data and location of each mineral deposit or occurrence in the Basin and Range province were selected from the U.S. Geological Survey's Oregon Mineral Data System-Computerized Resource Information Bank (Oregon MDS-CRIB) file and plotted with the Cartographic Automatic Mapping (CAM) Program (CIA, 1977) at a scale of 1:500,000.

The Basin and Range province lies in the south-central and southwestern portion of Oregon, in Harney, Klamath, Lake and Malheur Counties (fig. 1), and is characterized by Tertiary age extrusive rocks. Mercury, gold, and uranium are the most abundant metallic commodities; other base metals and saline deposits also occur in the region. The major mercury districts are: the Steens-Pueblo district (Harney County) where mercury is found in fissure zones in silicified and kaolinized rhyolite; the Quartz Mountain district (Lake County) where opalite with alunite deposits occur in rhyolite and tuff; the Opalite district (Malheur County) where opalite is disseminated in Miocene age tuffaceous lake beds and in adjacent unsilicified tuffs. The major gold districts are limited to Lake County and include: the Brattain district where lead, zinc, copper, silver, and gold occur in quartz veins associated with granitic intrusives; the High Grade district where gold-bearing silicified breccia zones and quartz veins cut through rhyolite and andesite; and the Lost Cabin district where gold is found in fractures in andesitic to rhyolitic flows, tuffs, and breccia zones. Uranium occurs as isolated veins, masses and disseminated deposits in clayey tuffs and breccias.

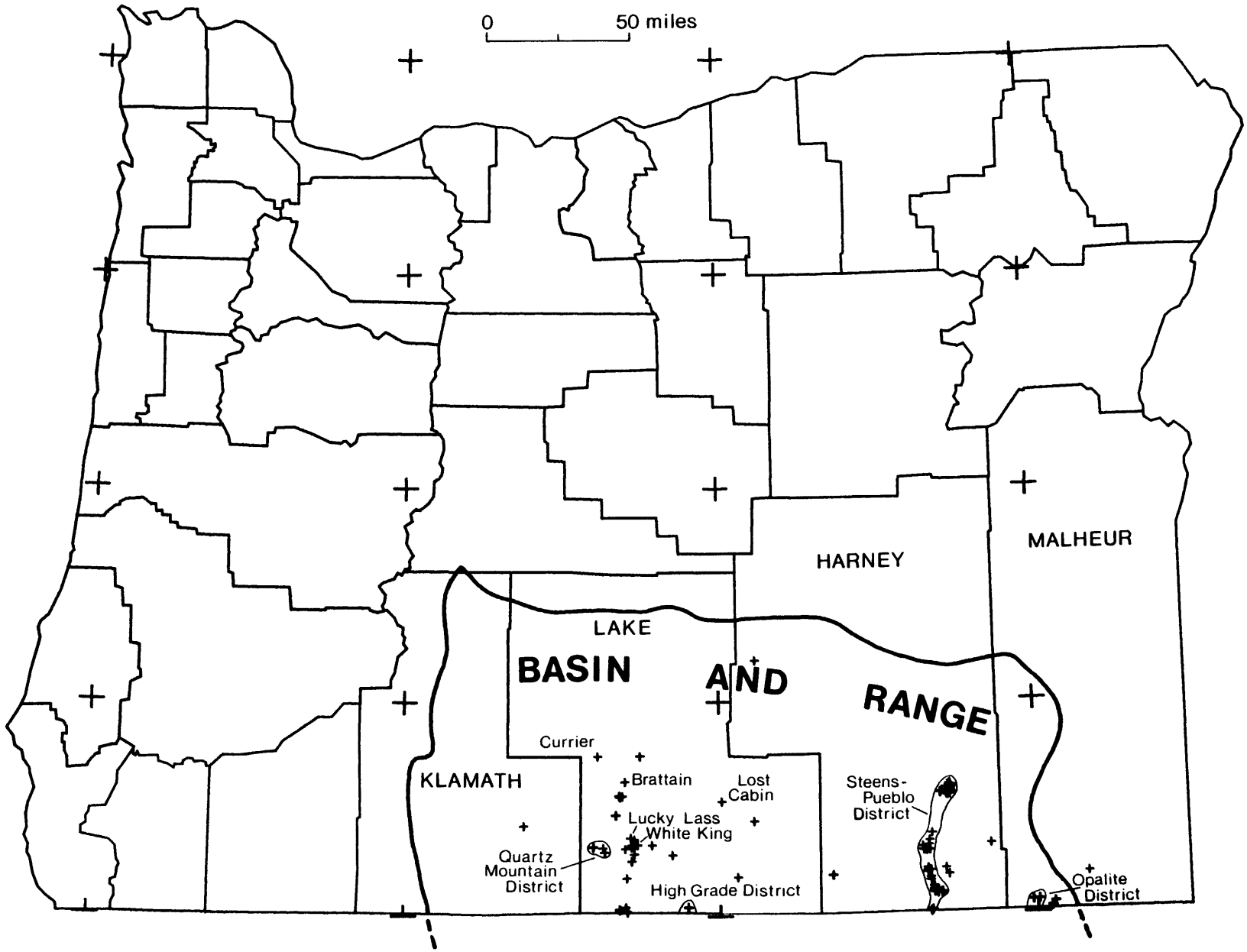

Figure 1. Index map of mining districts and mineral deposits in Basin and Range Province of Oregon.

A list of the metallic and nonmetallic commodity sites in the Basin and Range region was compiled from Oregon MDS-CRIB data; some additional information on nonmetallic deposits was obtained from Maridirosian (1976) and Mason (1951, rev. 1964). The mineral deposits and occurrences have been organized alphabetically by county and mining district into two tables. Table 1 is a summary of the major deposits and mining districts of the region; table 2 includes the site name, commodity, deposit type, location in cadastral and geodetic coordinates, and reference numbers for all of the documented commodity sites located in the province. A numbered bibliography follows table 2.

Oregon MDS-CRIB contains information about metallic and some nonmetallic commodities that are of national or international significance, their geologic occurrence and availability. The file contains location, geologic, resource, and production data collected from nonconfidential publications and commodity files. The universal transverse mercator (UTM) coordinates of each commodity site have been selected from Oregon MDS-CRIB and plotted on an index map and a map plot of scale 1:500,000 with the Cartographic Automatic Mapping (CAM) Program (CIA, 1977) on a Zeta 3600s drum plotter. The commodity types are represented on the map plot by the symbol (+). The outlines of the Basin and Range Province and the mining districts have been drawn from information given in the references.

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Table 1.--Summary of mining districts and major mineral deposits in the Basin and Range Province of Oregon

District or deposit name	Commodities present	Production in millions of dollars	Location
		HARNEY COUNTY	
Isolated deposits			
Alvord Lake (Borax Lake)	Borax, Na	0-1	T. 37 S., R. 33 E.
Steens-Pueblo district			
Fisher Group deposit	Hg	0-1	T. 36 S., R. 33 E., SW1/4
Mogul (Lucky Strike deposit)	Hg	0-1	T. 37 S., R. 32.75 E, SE1/2
Rabbit Hole Group	Hg	0-1	R. 39 S., T. 34 E., E1/2
Steens Mountain	Hg	0-1	T. 34 S., R. 34 E.
		LAKE COUNTY	
Isolated deposits			
Currier	Hg	0-1	T. 32 E., R. 16 E.
Lucky Lass	U	0-1	T. 37 S., R. 18 E., sec. 25
White King	U	1-10	T. 37 S., R. 19 E., sec. 30
Brattain district	Pb, Zn, Cu, Ag, Au	0-1	T. 34 S., R. 18 E.
High Grade district	Au	0-1	T. 41 S., R. 21 E.
Lost Cabin district	Au	0-1	T. 35 S., R. 23 E.
Gray	Hg	0-1	T. 34 S., R. 35 E.
Quartz Mountain district			
Angel Peak	Hg	0-1	T. 37 S., R. 17 E., sec. 32
		MALHEUR COUNTY	
Opalite district			
Bretz	Hg	1-10	T. 41 S., R. 41 E., sec. 3
Opalite	Hg	1-10	T. 40 S., R. 40 E., sec. 33

Table 2.--Mining districts, mineral deposits and occurrences in the Basin and Range Province, Oregon

Deposit or occurrence name	Commodities present	Deposit type	Location		Location		References
			Township, Range	Section	Latitude N.	Longitude W.	
			HARNEY COUNTY				
Isolated deposits and occurrences							
Alvord Lake	Borax, Na	Saline deposit	T. 36 S.,R. 33 E.		--	--	13, 30
Borax Lake	Borates	do.	T. 37 S., R. 33 E.		--	--	14
Eileen	Hg	--	T. 37 S., R. 32.75 E.	26	42°17'57"	118°42'43"	29
Horse Head Mountains	Hg	Vein	T. 27 S., R. 25 E.	30, 31	43°11'33"	119°45'51"	4
Lobo #3	U, Hg	--	T. 34 S., R. 33 E.		42°34'	118°36'	27
Lucky Boy	Hg	--	T. 37 S., R. 36 E.	16	42°19'35"	118°16'54"	11, 29
McLean's Copper	Hg	--	T. 39 S., R. 34 E.	12	42°12'09"	118°40'09"	29
Mile High	Hg	--	T. 40 S., R. 35 E.	17	42°05'55"	118°37'40"	29
No. 6, Mary D	U	Disseminated	T. 34 S., R. 34 E.		42°34'	118°33'	27
Old Faithful No. 1	Hg	--	T. 37 S., R. 32.75 E.	25	42°17'56"	118°41'33"	11, 29
Old Hopeful and New	Hg	Veinlets	R. 34 S., R. 34 E.	19	42°34'24"	118°33'23"	29
Pueblo Mining Co.	Hg	--	T. 40 S., R. 35 E.	7,8,9	42°06'47"	118°37'41"	11, 29

Table 2.--Mining districts, mineral deposits and occurrences in the Basin and Range Province, Oregon--(Continued)

Deposit or occurrence name	Commodities present	Deposit type	Location		Location		References
			Township, Range	Section	Latitude N.	Longitude W.	
Red Hill	Hg, Cu	Hydrothermal	T. 39 S., R. 34 E.	11, 14	42°11'39"	118°41'13"	11, 29
South O'Keefe	Hg	—	T. 39 S., R. 35 E.	2	42°12'56"	118°34'08"	11, 29
Yellow Jacket	Hg	--	T. 37 S., R. 33 E.	30	42°17'55"	118°40'24"	29
--	U	--	T. 36 S., R. 33 E.		42°24'	118°50'	27
—	Cu, U, Hg	Vein	T. 40 S., R. 35 E.		42°06'	118°36'	27
--	U	Fracture filling	T. 34 S., R. 34 E.	20	42°34'25"	118°32'15"	16, 27
—	U, Cu	—	T. 40 S., R. 35 E.	18	42°06'	118°38'45"	16
--	U, Hg	—	T. 34 S., R. 34 E.	8	42°36'10"	118°32'15"	27
—	U, Hg	Vein	T. 40 S., R. 35 E.		42°06'	118°36'	27
--	U, Hg	do.	T. 40 S., R. 35 E.	8	42°06'45"	118°37'40"	27
—	U	—	T. 39 S., R. 29 E.		42°11'10"	119°17'20"	10
Steens-Pueblo District							
Alex-Ladd	U	—	T. 34 S., R. 34 E.	20, 29	42°34'25"	118°32'15"	22
Alexander	Hg	Fracture coating, seams	T. 34 S., R. 34 E.	30	42°33'46"	118°33'06"	2, 6, 29, 31
Apache	Hg, Cu	Vein	T. 40 S., R. 35 E.	7	42°06'49"	118°38'06"	11, 29, 31
Arizona	Hg, Cu, Mn, Au	--	T. 40 S., R. 35 E.	6	42°07'41"	118°39'01"	11, 24, 29

Table 2.--Mining districts, mineral deposits and occurrences in the Basin and Range Province, Oregon--(Continued)

Deposit or occurrence name	Commodities present	Deposit type	Location			Location		References
			Township,	Range	Section	Latitude N.	Longitude W.	
Blair Group	Hg, Ba, Cu	Vein/shear zone	T. 37 S.,	R. 32.75 E.	26	42°17'57"	118°42'43"	4, 11 24, 29, 31
Blue Bull	Hg, Cu As	Shear zone	T. 39 S.,	R. 34 E.	24	42°10'19"	118°40'02"	4, 11, 24, 29, 31
Cash Group	Hg, Cu	Hydrothermal	T. 39 S.,	R. 34 E	25	42°09'30"	118°40'04"	2, 4, 11, 29
Double Link	Hg, Cu	Fracture coating	T. 41 S.,	R. 34 E.	12, 13	42°00'48"	118°40'04"	4, 11, 25, 29, 31
Eldorado Group	Hg, Cu	Vein/shear zone	T. 37 S.,	R. 33 E.	7	42°20'39"	118°40'18"	4, 5, 31
Farnham	Ag, Au, Cu	Vein	T. 40 S.,	R. 34 E.	13, 18	--	--	25
Farnham (Wonder Rock)	Ag, Hg Au	do.	T. 40 S.,	R. 35 E.	8, 17	42°06'21"	118o37'40"	4, 6, 11, 29
Fisher Group	Hg, Ba Cu	Vein/shear zone	T. 36 S.,	R. 33 E.	32, 29, 17	42°22'40"	118°39'16"	2, 4, 11, 24, 29, 31
Harmony and Surprise Group	Hg, Cu	--	T. 39 S.,	R. 4 E.	2	42°12'54"	118°41'15"	11, 29, 31
Jack Pot	Hg	Disseminated	T. 34 S.,	R. 34 E.	30	42°33'32"	118°33'24"	4
Last Chance	Hg	Shear zone	T. 34 S.,	R. 34 E.	30	42°33'32"	118°33'24"	2, 4, 29
Lucky Star Group	Hg, Cu Ba	do.	T. 37 S.,	R. 33 E.	7, 18	42°19'21"	118°40'33"	4, 11, 29 31
Lucky Strike	Hg, Au	Fracture coating	T. 37 S.,	R. 32.75 E.	35	42°17'48"	118°41'26"	4, 11, 24, 29

Table 2.--Mining districts, mineral deposits and occurrences in the Basin and Range Province, Oregon--(Continued)

Deposit or occurrence name	Commodities present	Deposit type	Location			Location		References
			Township,	Range	Section	Latitude N.	Longitude W.	
Mogul	Hg, Ba, Cu	Veinlets	T. 37 S.,	R. 32.75 E.	32	42°17'57"	118°42'14"	2, 4, 11, 29
Nellie B	Hg	"Paint"	T. 37 S.,	R. 32.75 E.	25	42°17'56"	118°41'33"	4, 11, 29, 31
O'Keefe	Hg, Cu, Ba	Fracture coating	T. 37 S.,	R. 32.75 E.	23	42°19'02"	118°43'01"	31
Pike	Hg	Veinlets	T. 34 S.,	R. 34 E.	30	42°33'32"	118°33'24"	4, 11, 29
Pike Creek carnotite	U, Hg	Hydrothermal	T. 34 S.,	R. 34 E.	17, 20	42°35'20"	118°32'35"	8, 16, 21, 28
Pot Hole	Hg	Fracture coating	T. 34 S.,	R. 4 E.	29	42°33'32"	118°32'13"	4
Pueblo Group	Hg, Au, Cu, Ag	Vein/shear zone	T. 40 S.,	R. 35 E.	17	42°06'15"	118°37'40"	4, 6, 29, 31
Rabbit Hole	Hg, Cu, Ba	Hydrothermal	T. 39 S.,	R. 34 E.	12	42°12'09"	118°40'09"	4, 11, 24, 29, 31
Red Hill	Hg	Fracture coating	T. 37 S.,	R. 33 E.	30	42°17'54"	118°40'17"	4, 24, 29, 31
Red King	Hg, Cu	Hydrothermal	T. 39 S.,	R. 34 E.	11	42°12'11"	118°41'14"	4, 24, 31
Rhoads	Hg, Ba	Disseminated, fracture coating	T. 34 S.,	R. 34 E.	18	42°35'17"	118°33'23"	4
Rhoads prospect	U, Mn	Secondary enrichment	T. 34 S.,	R. 34 E.	7	42°36'15"	188°32'38"	3
Spring Creek	Hg, Cu	Reef/shear zone	T. 39 S.,	R. 35 E.	12	42°11'10"	118°33'09"	11, 29, 31

Table 2.--Mining districts, mineral deposits and occurrences in the Basin and Range Province, Oregon--(Continued)

Deposit or occurrence name	Commodities present	Deposit type	Location		Location		References
			Township, Range	Section	Latitude N.	Longitude W.	
Steens Mtn. (Stephanson and Bradley)	Hg	Fracture coating	T. 34 S., R. 34 E.	19, 20	42°34'25"	118°33'00"	2, 4, 11, 24, 29, 31
Stewart	Hg	Veinlet	T. 34 S., R. 34 E.	30	42°33'19"	118°33'08"	4, 11, 29
Timberbeast	U, Mo	Secondary enrichment	T. 34 S., R. 34 E.	7, 8, 9	42°36'00"	118°32'36"	3, 20
Upper Pike	U	Volcanic, secondary enrichment	T. 34 E., R. 30 E. T. 34 S., R. 33 E.	3,12,13 18	42°35'33"	118°33'56"	27
KLAMATH COUNTY							
Isolated deposits and occurrences							
Givan Ranch	Hg	Vein(?)	T. 36 S., R. 12 E.	25	42°25'26"	121°14'11"	4
LAKE COUNTY							
Isolated deposits and occurrences							
Abert Lake	NaCl Na	Saline deposit	T. 33-35 S., R. 21 E.		--	--	1, 14
Adel	Hg	--	T. 39 S., R. 24 E.	16	42°10'53"	119°53'06"	4
Alkali Lake	NaCl, Na	Saline deposit	T. 30 S., R. 23 E.		--	--	1, 14
Bald Butte	U	--	T. 35 S., R. 18 E.	6	42°33'49"	120°38'15"	16
Batman	Hg	--	T. 41 S., R. 18 E.	4	42°02'27"	120°36'00"	4, 29

Table 2.--Mining districts, mineral deposits and occurrences in the Basin and Range Province, Oregon--(Continued)

Deposit or occurrence name	Commodities present	Deposit type	Location		Location		References
			Township, Range	Section	Latitude N.	Longitude W.	
Big Enough	U	--	T. 37 S., R. 18 E.	33	42°18'57"	120°35'55"	16
Big Surprise	Hg	--	T. 41 S., R. 18 E.	16	42°01'18"	120°35'25"	29
Bobcat	Hg	--	T. 41 S., R. 18 E.	4	42°02'27"	120°36'00"	29
Chewancan River	Hg	--	T. 43 S., R. 18 E.	9, 16	42°37'44"	120°36'04"	4, 11, 29
Currier	Hg	Fracture filling	T. 32 S., R. 16 E.	36	42°45'01"	120°46'13"	2, 4, 11, 23, 29
Diamond Vee	U	--	T. 37 S., R. 18 E.	35	42°19' "	120°33'30"	19
Digmore	Hg	--	T. 38 S., R. 20 E. T. 38 S., R. 21 E.	12 7	42°17'14"	120°17'48"	29
Dozer and Lucky Strike	Hg	--	R. 41 S., R. 21 E.	1, 2	42°02'26"	120°12'02"	29
Fort Rock	NaCl, Na	Saline deposit	T. 26 S., R. 16 E.	35	--	--	1, 14
Hammersley	U	--	R. 37 S., R. 18 E.	35	42°19' "	120°33'30"	19
Hart Mountain	Hg	--	T. 36 S., R. 25 E.	16	42°26'37"	119°46'34"	4, 11, 29
Hope Claims	U	--	T. 38 S., R. 18 E.	23	42°15'30"	120°33'30"	8
Kingwell	Hg		T. 32 S., R. 19 E.	32	42°44'58"	120°30'00"	4, 11, 29
Los Oros and BVD Group	U	Disseminated in fault	T. 37 S., R. 18 E.	26	42°20' "	120°33'30"	--
Lucky Day and Topper	U	do.	T. 37 S., R. 18 E.	26, 35	42°19'30"	120°33'30"	7, 19

Table 2.--Mining districts, mineral deposits and occurrences in the Basin and Range Province, Oregon--(Continued)

Deposit or occurrence name	Commodities present	Deposit type	Location			Location		References
			Township,	Range	Section	Latitude N.	Longitude W.	
Lucky Lass	U, Hg	Disseminated	T. 37 S.,	R 18 E.	25	42°19'55"	120°25'24"	7, 10, 16
Marty K	U, Hg	do.	T. 37 S.,	R. 18 E.	13, 14	42°21'37"	120°32'24"	7, 10, 16
Muddy	Hg	—	T. 39 S.,	R. 18 E.	16	42°10'47"	120°35'20"	29
O'Leary	Hg	Veinlets, fracture filling	T. 35 S.,	R. 18 E.	5	42°33'47"	120°37'05"	4
Pie 1	U	—	T. 37 S.,	R. 18 E.	35	42°19' "	120°33'30"	19
Pinto Group	Hg	Disseminated	T. 41 S.,	R. 18 E.	6	42°02'00"	120°38'18"	4
Summer Lake	NaCl, Na	Saline deposit	T. 30-32 S.,	R. 16,17 E.		--	--	1, 14
S & M	U	Seam and joint coatings	T. 38 S.,	R. 18 E.	12	42°17'30"	120°32'30"	7
White King	U, As, Hg, Sb, Mo	Vein, disseminated	T. 37 S.,	R. 19 E.	30	42°20'00"	120°31'15"	7, 16
--	U, Hg	—	T. 36 S.,	R. 17 E.	1	42°28'30"	120°39'30"	27
Brattain district								
Gaylord	Pb, Zn, Cu, Ag, Au	Veinlets	T. 34 S.,	R. 18 E.	11	--	--	13, 21
Prospects	Cu, Pb	--	T. 34 S.,	R. 19 E.	18, 19	--	--	13, 21
High Grade district (only partly in Oregon)								
Several prospects	Au	Vein/shear zone	T. 41 S.,	R. 21 E.		--	--	6, 13, 21

Table 2.--Mining districts, mineral deposits and occurrences in the Basin and Range Province, Oregon--(Continued)

Deposit or occurrence name	Commodities present	Deposit type	Location		Location		References
			Township, Range	Section	Latitude N.	Longitude W.	
Lost Cabin (Coyote Hill) district							
Gray (Windy Hollow)	Hg	Disseminated	T. 35 S., R. 23 E.	14, 15	42°32'02"	119°58'53"	4, 6, 11, 29
Quartz Mountain district							
Angel Peak	Hg	Fracture coating	T. 37 S., R. 17 E.	32	42°19'16"	120°44'35"	2, 4, 29
Crone	Hg	Disseminated	T. 37 S., R. 16 E.	3	42°19'26"	120°48'14"	4
Manzanita Group	Hg	Fracture coating	T. 37 S., R. 16 E.	26	42°19'38"	120°47'59"	4
Rosalite	Hg	--	T. 38 S., R. 17 E.	5	42°18'00"	120°43'52"	4
MALHEUR COUNTY							
Isolated deposits and occurrences							
Alcorte	Hg	--	T. 39 S., R. 43 E.		42°10'56"	117°40'15"	11, 29
Burnell -Larson	Hg	Disseminated	T. 40 S., R. 40 E.	34, 35, 36	42°03'33"	117°59'23"	29
Sunset Mercury	Hg	--	T. 41 S., R. 41 E.		42°01'29"	117°54'30"	11, 29
--	U	--	T. 27 S., R. 37 E.	13	43°13'40"	118°07'45"	9
Opalite (McDermitt) district							
Bretz	Hg, As	Veinlets, disseminated	T. 41 S., R. 41 E.	3	42°02'44"	117°53'26"	2, 4
Opalite	Hg, U, Li	Fracture filling	T. 40 S., R. 40 E.	33	42°03'19"	118°01'30"	2, 4, 26

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