

UNITED STATES DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

Preliminary map of the resource areas
in the Basin and Range Province of Utah

by

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Open-File Report 83-722

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards and stratigraphic nomenclature. Any use of trade names is for descriptive purposes only and does not imply endorsement by the USGS.

1983

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The purpose of this map is to identify the mineralized areas within the Basin and Range Province. These areas include past or present mining and prospecting activity as well as areas of potential resources based on projections of geologic data. The report is a preliminary evaluation and is subject to review and the identification of resource occurrences.

The limits of the resource areas shown on the accompanying map are not legal mining district boundaries and may include more than one district as well as adjacent areas having resource potential. Informal names are used for those areas that have no formal name. Table 1 contains basic information for each area including location, commodities present, statement of the type and age of deposit, and a few selected references.

The location of each individual mining site was obtained from the U.S. Geological Survey's Mineral Resource Data System (MRDS) [formerly the Computerized Resource Information Bank (CRIB)] for Utah. The MRDS file for Utah (Tooker and Wong, 1980) is part of a master file of data for the United States. The Utah file was constructed as a working tool for retrieval of information to assist in assessing the known and potential locatable mineral resources. The organic fuel and geothermal energy materials are not included in this file, but are included in a comparison MRDS file maintained by the Utah Geological and Mineral Survey, Salt Lake City, Utah. For each site, the file contains information on the location, commodities, production, description of the deposit, description of the workings, geology, and the references. A more detailed description of the Utah file and public access to it are available in U.S. Geological Survey Circular 846 (Tooker and Wong, 1982).

From this file, the metallic and some nonmetallic mining sites for the western half of Utah were plotted with the Cartographic Automatic Mapping (CAM) Program (Central Intelligence Agency, 1977) on a Zeta 3600s plotter. The metallic commodities are plotted as (+) and the nonmetallics as (x). The localities shown on the map are not distinguished by size, type, commodity, or production, but table 1 provides some of this information for each individual district. Table 1 is organized by county and alphabetically by district name. A list of references on the districts is included, and the numbers in Table 1 correspond to the numbers in the reference list.

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Table 1. District Description

Mining district	Location		Commodities	Deposit type	Host rock	References
	Township	Range				
BEAVER COUNTY						
Antelope	26 S.	9 W.	Pb, Ba			
Beaver Lake	26 S.	11 W.	Cu, Pb, Zn, Fe, Mn, S, P	Skarn ----- Bedded replacement ---- Contact metamorphic ---	Undifferentiated carbonates Lime Mountain Dolomite do.	5, 18, 23, 80, 164
Bradshaw	29 S. 29 S.	9 W. 10 W.	Ag, Au, Pb, Zn, Cu, Fe, W, F	Contact metasomatic --- Replacement -----	Kaibab Limestone Redwall Limestone	18, 19, 24, 37, 59, 80, 87
Fortuna	27 S.	7 W.	Au	Vein		24
Granite	28 S. 28 S.	8 W. 9 W.	Ag, Au, Pb, Cu, W, Mo, Fe, F, Be	Contact metasomatic ---	Kaibab Limestone	18, 19, 37, 59, 87
Lincoln	29 S.	9 W.	Ag, Au, Pb, Zn, Cu, W, F, P	Replacement ----- Contact metasomatic ---	do. do.	18, 24, 37
McGarry	27 S.	9 W.	Fe, Ba, Pb, Cu			
Newton	27 S. 28 S.	6 W. 6 W.	Ag, Au, W, U, Al, Mn, F	Vein -----	Bullion Canyon Volcanics, Mount Belknap Rhyolite	15, 19, 24, 26, 28, 38, 44, 59, 73, 83, 102, 125, 197, 200, 220
Pine Grove	28 S. 29 S. 29 S. 30 S. 30 S.	16 W. 15 W. 16 W. 14 W. 15 W.	Ag, Au, Pb, Zn, Cu, Fe, Mo, U, Sn, Be, Mn, F, Al, clay	Gossan ----- Vein ----- Replacement ----- Fracture filling -----	Undifferentiated limestone do. Pioche Shale-limestone Prospect Mountain Quartzite	18, 19, 38, 80, 100, 141, 164, 198, 202, 212
Preuss	26 S. 27 S.	13 W. 13 W.	Ag, Au, Pb, Cu, Ba, Fe	Disseminated ----- Breccia pipe ----- Vein ----- Replacement -----	Cactus Quartz Monzonite do. Prospect Mountain Quartzite Limestone	23, 57, 118, 164
Rocky	27 S. 27 S.	11 W. 12 W.	Ag, Au, Pb, Zn, Cu, Fe, W, Mo	Skarn ----- Vein ----- Porphyry -----	Toroweap Formation Volcanics Quartz Monzonite	5, 18, 23, 24, 59, 87, 213
San Francisco	27 S. 27 S.	13 W. 14 W.	Ag, Au, Pb, Zn, Cu, Fe, W, Mo, F	Contact metasomatic --- Replacement ----- Fissure filling ----- Skarn -----	Limestone of Orr Formation do. Volcanics, quartz monzonite Limestone	19, 23, 24, 52, 57, 59, 87, 108, 116, 137, 164, 194
Star	28 S. 28 S. 29 S.	11 W. 12 W. 12 W.	Ag, Au, Pb, Zn, Cu, Fe, Mo, W, F, S	Replacement ----- Vein ----- Replacement ----- Vein ----- Replacement ----- Vein ----- Replacement -----	Callville-Pakoon, undifferentiated do. Redwall Limestone Kaibab Formation Basal member of Guilmette Formation Shauntie Quartz Monzonite Talisman Quartzite	1, 19, 23, 59, 80, 87, 164, 202, 207, 213, 218
Washington	30 S. 30 S.	17 W. 18 W.	F, U, Cu	Vein ----- Vein -----	Porphyritic Ignimbrite Wah Wah Springs Tuff	19, 60, 66, 202
BOX ELDER COUNTY						
Ashbrook	14 N. 14 N. 15 N.	17 W. 18 W. 18 W.	Ag, Au, Pb, Zn, Cu	Vein ----- Replacement -----	Wardlaw Shale Vipont Limestone, Sentinel Limestone, Phelan Limestone	24, 91, 166
Crater	4 N.	17 W.	Au, Cu	Contact metamorphic ---	Tectic zone	178
Lucin	6 N. 7 N.	19 W. 19 W.	Ag, Pb, Zn, Cu, Fe, Au, Mo, Ba	Replacement -----	Fish Haven Dolomite Laketown Dolomite, Guilmette Formation	18, 24, 80, 164
Newfoundland	4 N. 4 N. 6 N. 6 N.	14 W. 15 W. 13 W. 14 W.	Ag, Au, Pb, Cu, W, Ba	Vein ----- Contact Metamorphic ---	Porphyry Granite, Limestone Garden City Formation	59, 80
Park Valley	13 N. 13 N.	14 W. 15 W.	Ag, Au, Pb, Zn, Cu	Vein -----	Granite	24, 81, 164
Promontory Point	6 N. 6 N.	5 W. 6 W.	Ag, Au, Pb, Zn, Cu	Vein ----- Replacement -----	Limestone, quartzite Lakeview Limestone	24, 77, 80, 82, 183
Rosebud	9 N. 9 N. 10 N. 11 N. 11 N.	16 W. 17 W. 16 W. 16 W. 17 W.	Ag, Pb, Cu, W, Bi	Contact metamorphic --- Replacement ----- Vein -----	Pogonip Formation do. Limestone	24, 59, 111, 115, 164
Tecoma	9 N.	19 W.	Ag, Zn	Replacement -----	Limestone	80
Willard	8 N. 8 N. 10 N.	1 W. 2 W. 1 W.	Ag, Au, Pb, Cu, U, Sb, Fe	Vein ----- Replacement -----	Quartzite do.	18, 24, 44
IRON COUNTY						
Escalante	36 S.	17 W.	Ag, Cu, Zn, Mn, V, Mo	Vein ----- Bedded -----	Rhyolite Claron Limestone	24, 38, 80
Gold Springs	33 S.	20 W.	Ag, Au, Pb, Cu, U	Vein -----	Porphyritic Andesite Flow	24, 163
Harmon Coalfield	37 S. 37 S. 37 W. 38 S.	10 W. 11 W. 13 W. 12 W.	Coal			
Indian Peak	31 S.	18 W.	Ag, Au, Pb, Zn, Cu	Contact metasomatic ---	Dolomite	80

UTAH (continued)

Mining district	Location		Commodities	Deposit type -----	Host rock	Referencee			
	Township	Range							
IRON COUNTY (continued)									
Iron Springs	35 S.	12 W.	Fe, Cu, Pb, Mn, Hg, P	Replacement -----	Homestake Limestone	18, 24, 114, 131, 132, 133, 132, 133, 134, 221			
	35 S.	13 W.		Vein -----	Quartz monzonite				
	36 S.	12 W.		Breccia pipe -----	do.				
	36 S.	13 W.		Contact metasomatic ---	Homestake Limestone				
	36 S.	14 W.							
	37 S.	14 W.							
Stateline	32 S.	19 W.	Ag, Au, Cu, Pb, Mn	Vein -----	Welded Tuff	24, 108, 201			
	32 S.	20 W.							
	33 S.	20 W.							
JUAB COUNTY									
Canyon Range	17 S.	3 W.	Fe	Bedded replacement ----	Laketown and Fish Haven Dolomite	18			
Desert Mountain	12 S.	7 W.	Cu, Ba	Vein -----	Granite	24, 84			
Detroit	14 S.	11 W.	Ag, Au, Cu, Mn, Fe, Ba, S, As, Bi	Replacement vein ----- Bedded replacement ----	Jasperoid Dolomite A and Limestone B	24, 25, 38, 39, 106, 136			
Drum	14 S.	11 W.	Fe, S, P, Mn	Gossan -----	Notch Peak Limestone	18			
Erickson	10 S.	8 W.		Vein -----	Quartzite	24, 38, 80, 159			
	11 S.	8 W.		Replacement -----	Quartzite, shale				
Fish Spring	11 S.	14 W.	Ag, Au, Pb, Zn, Cu, Mo, Fe, Be, U, V, F, Mg	Replacement -----	Notch Peak Formation	19, 22, 24, 37, 80, 121 143, 157, 164, 187			
				Bedded -----	White Tuff				
				Vein -----	Bell Hill Dolomite				
Fumarole Butte	14 S.	8 W.	Mn, U	Chemical sediments ----	Precipitates	29, 38, 79, 113			
Johnson Peak	12 S.	18 W.	Pb, Zn, W, Be, F	Vein -----	Trout Creek Formation	17, 19, 22, 59, 116, 139, 201, 202			
Mount Nebo	11 S.	1 E.	Ag, Pb, Zn, Fe	Replacement -----	Limestone	16, 24, 80			
				Pipe -----	Cole Canyon Dolomite				
				Bedded replacement ----	Deseret Limestone				
				Vein -----	Limestone				
North Tintic	(Look under Utah County)								
Spor Mountain	12 S.	12 W.	F, U, V, Be, Li, Mg, Mn	Pipe -----	Lost Sheep Dolomite, Floride Dolomite, Bell Hill Dolomite, Fish Haven Dolomite	6, 19, 30, 44, 113, 121, 122, 123, 139, 143, 180, 181, 186, 187, 188, 189, 190, 202			
	13 S.	12 W.			Lost Sheep Dolomite, Rhyolite, Bell Hill Dolomite				
				Bedded -----	Tuff member of Spor Mountain Formation				
Spring Creek	12 S.	18 W.	Ag, Au, Cu, Fe, U, Mn, Be	Vein -----	Trout Creek Formation, Johnson Pass Formation	24, 80, 201			
	12 S.	19 W.		Gossan -----	Chainman Shale				
	13 S.	19 W.							
	14 S.	19 W.							
Tintic	11 S.	2 W.	Ag, Au, Pb, Zn, Cu, Fe, Bi, Mn, V, Ba, talc, clay	Replacement -----	Opohonga Limestone, Fish Haven Dolomite, Blue-Bell Dolomite, Cole Canyon Dolomite, Tintic Quartzite, Ajax Dolomite, Deseret Limestone	8, 18, 24, 33, 38, 80, 104, 108, 119, 120, 126, 138, 147, 148, 151, 153, 161, 206			
	10 S.	2 W.			Silver City Monzonite Stock, Tintic Quartzite, Ajax Dolomite, Blue-Bell Dolomite, Sunrise Peak Monzonite Porphyry, Latite				
	10 S.	3 W.							
				Vein -----					
Topaz Mountain	13 S.	11 W.	U, F	Vein -----	Tuff	113, 158, 188			
West Tintic	11 S.	5 W.	Ag, Au, Pb, Zn, Cu, Fe, W, Be, F	Vein -----	Limestone	18, 24, 59, 80, 87, 115, 116, 192, 217			
				Bedded replacement ----	Bonanza Shale				
				Contact metasomatic ---	Limestone				
HILLARD COUNTY									
Detroit	(Look under Juab County)								
Gordon	25 S.	6 W.	F, S	Replacement -----	Callville Limestone	19, 45			
Iron Mine Pass	25 S.	12 W.	Fe, Mn	Gossan -----	Quartzite and argillite	18			
Leamington	15 S.	3 W.	Ag, Au, Pb	Replacement -----	Ophir Formation	24			
Pavant Range	23 S.	4.5 W.	Fe, Mn	Gossan -----	Limestone	18			
	24 S.	6 W.		Replacement -----	Limestone				
Saw Beck	22 S.	13 W.	Cu, Pb, Mo						
Sawtooth Mountain	18 S.	14 W.	W, Mo, Au	Disseminated -----	Limestone Roof Pendant	59, 116			
	19 S.	14 W.							
Twin Peaks	23 S.	8 W.	Fe	Vein -----	Rhyolitic volcanic rocks	18			
PIUTE COUNTY									
Gold Mountain	27 S.	4 W.	Ag, Au, Al, U, Cu, F, Mn, Hg, P	Vein; replacment -----	Bullion Canyon Volcanics	19, 24, 25, 26, 28, 83, 103, 108, 117, 200			
	27 S.	5 W.							
	26 S.	4 W.							
SALT LAKE COUNTY									
Bingham	3 S.	3 W.	Cu, Au, Ag, Mo, Pt, Pd, Se, Re, U, Te, Pb, Bi, Ti, Ni, Zn, Fe, As, Hg	Disseminated -----	Quartz monzonite porphyry	3, 7, 11, 12, 13, 24, 34, 47, 53, 61, 75, 88, 99, 90, 92, 94, 95, 96, 98, 108, 109, 110, 112, 138, 144, 145, 154, 162, 165, 170, 172, 174, 176, 193, 203, 204, 205, 210, 222			
	4 S.	3 W.		Vein -----	Quartzite, limestone				
				Replacement -----	Limestone				
				Placer -----	Gravels				
Lower Placer	3 S.	2 W.	Au	Placer					

UTAH

Mining district	Location		Commodities	Deposit type -----	Host rock	References
	Township	Range				
TOOELE COUNTY						
Blue Bell	10 S.	5 W.	Ag, Pb, Mn	Replacement -----	Dutch Peak Tillite	24, 32, 80
	10 S.	6 W.		Fissure filling -----	Quartzite	
Bonneville Salt Flat	1 S.	18 W.	Halite	Evaporite -----	Lacustrine sediments	155
Camp Floyd (Mercur)	6 S.	3 W.	Ag, Au, Cu, Sb, Hg, As,	Replacement -----	Great Blue Limestone, Deseret	2, 9, 24, 48, 65, 68, 69,
	6 S.	4 W.	Ba, clay		Limestone	70, 85, 92, 108, 140, 185
Clifton	7 S.	17 W.	Ag, Au, Pb, Zn, Cu, Fe, Mo,	Vein -----	Quartz monzonite, Oquirrh	18, 19, 22, 24, 41, 54, 59,
	7 S.	18 W.	W, Bi, V, Be, Ba, As, F,		Formation, Ochre Mountain	62, 68, 72, 80, 101, 115,
	8 S.	17 W.	Ro		Limestone	116, 139, 156, 164, 179,
	8 S.	18 W.		Contact metamorphic ---	Ochre Mountain Limestone	201
	9 S.	17 W.		Replacement -----	Oquirrh Formation	
	9 S.	18 W.		Gossan -----	Ochre Mountain Limestone	
				Pegmatite -----	Quartz monzonite	
Columbia	9 S.	6 W.	Ag, Pb, Zn, Fe, Mn	Vein -----	Quartzite	18, 24, 32, 80
	10 S.	6 W.				
Dugway	9 S.	12 W.	Ag, Au, Pb, Zn, Cu, Fe, F	Replacement -----	Dolomite, limestone, quartzite	19, 24, 80, 164, 188
	10 S.	12 W.		Vein -----	Quartzite, limestone	
Erickson	10 S.	6 W.	Ag, Au, Pb, Zn, Cu, Mn,	Replacement -----	Quartzite	19, 24, 32, 38, 80, 84, 159
	10 S.	7 W.	U, F			
	10 S.	8 W.				
	9 S.	9 W.				
Five Mile Pass	7 S.	3 W.	Clay			93, 129, 191, 209
Free Coinage	1 S.	7 W.	Ag, Pb, Zn, Hg, limestone	Replacement -----	Dolomite, limestone	68, 71, 80, 129, 164, 175,
	2 S.	6 W.				191
	2 S.	7 W.				
Granite Peak	8 S.	13 W.	Ag, Pb, Cu, Fe, Be, F, mica	Vein -----	Granite	17, 19, 24, 55, 64, 74
	9 S.	13 W.		Pegmatite -----	Biotite Granite Gneiss	
Lakeside	1 N.	9 W.	Ag, Pb, Zn, Mg, Cl, K,	Brine -----	Great Salt Lake	68, 71, 80, 150, 191, 214
	1 S.	10 W.	Limestone, building stone	Replacement -----	Dolomite	
	1 N.	6 W.				
	2 N.	8 W.				
	2 N.	9 W.				
North Tintic	(Look under Utah County)					
Ophir	5 S.	4 W.	Ag, Au, Pb, Zn, Cu, W, Mn	Replacement -----	Great Blue Limestone, Deseret	9, 14, 24, 38, 51, 59, 67,
					Limestone, Madison Limestone,	70, 80, 108, 138, 142,
				Vein -----	Ophir Formation	164, 216
					Limestone	
Rush Valley	4 S.	4 W.	Ag, Au, Pb, Zn, Cu	Replacement -----	Limestone	24, 70, 80, 138, 146, 164,
						221
Silver Island	2 N.	17 W.	Ag, Au, Pb, Cu, Sb	Vein -----	Limestone	24, 178
Sunshine	6 S.	3 W.	Au	Replacement -----	Great Blue Limestone	9, 24, 70
Third Term	3 S.	7 W.	Ag, Au, Pb, Cu, Fe	Replacement -----	Dolomite	18, 40, 175
	4 S.	7 W.		Gossan -----	Limestone	
	5 S.	7 W.				
Tooele	3 S.	3 W.	Pb, Cu			
West Mercur	6 S.	4 W.	Au	Replacement -----	Great Blue Limestone	9, 24, 70
	6 S.	4 W.				
Wildcat Range	4 S.	13 W.	Ag, Cu, F, Ba, Fe	Replacement -----	Oquirrh Formation	19, 20, 21, 22, 76, 184
Willow Springs	9 S.	18 W.	Ag, Au, Pb, Zn, Cu, Fe	Replacement -----	Dolomite, quartzite	86, 156, 164, 201
	10 S.	17 W.	Hg, Ba, Sb	Vein -----	Quartzite, dolomite, limestone	
	10 S.	18 W.				
UTAH COUNTY						
Alpine	4 S.	2 E.	Pb, Ag	Replacement -----	Limestone	24, 80
East Tintic	10 S.	2 W.	Ag, Au, Pb, Zn, Cu, Fe,	Vein -----	Quartzite	8, 18, 24, 33, 38, 80, 105,
			Mn, Be, Ba	Replacement -----	Opohonga Limestone, Cole Canyon	120, 126, 127, 128, 135,
					Dolomite, Tintic Quartzite,	139, 147, 149, 152, 153,
					a Ophir Formation	159, 160, 169, 182
Lehi	6 S.	1 W.	Clay, marble			
Long Ridge	11 S.	1 W.	Mn	Replacement -----	Ophir Formation	38
North Tintic	9 S.	2 W.	Ag, Au, Pb, Zn, Cu, Bi,	Vein -----	Humburg Formation, Blubell	24, 33, 38, 436, 49, 50, 63,
	9 S.	3 W.	Mn, clay		Dolomite, Fish Lake Dolomite,	80, 120, 148, 173, 177
				Replacement -----	Ophir Formation	
					Deseret Limestone, Bluebell	
					Dolomite, Fitchville Formation	
WASHINGTON COUNTY						
Beaver Dam Mountain	42 S.	17 W.	W	Pegmatites -----	Granite gneiss	59, 116
Bloomington Hill	43 S.	16 W.	Cu, U			
Bull Valley	38 S.	17 W.	Fe	Vein -----	Rencher Formation	10, 18, 211, 223
	38 S.	19 W.				
Goldstrike	39 S.	18 W.	Au, As	Vein -----	Callville Limestone	24
Gunlock Reservoir	40 S.	17 W.	Mn, Sr	Replacement -----	Carmel Formation	38
Harrisburg	41 S.	13 W.	Ag, Au, Cu, U, V	Chemical sediments ----	Leeds Sandstone, Tecumseh	36, 44, 167, 195
	41 S.	14 W.			Sandstone, Chinle Formation	
Mineral Mountain	38 S.	19 W.	Fe, Cu	Vein -----	Callville Limestone	18, 56

UTAH

Mining district	Location		Commodities	Deposit type -----	Host rock	References
	Township	Range				
WASHINGTON COUNTY (continued)						
Pinto	37 S.	15 W.	Fe			
Tutsagubet	43 S.	17 W.	Ag, Pb, Zn, Cu	Replacement -----	Callville Limestone	24, 80
	43 S.	18 W.				
WEBER COUNTY						
Fremont Island	5 N.	4 W.	Cu, Au, Pb, Cu			
	5 N.	5 W.				

APPENDIX A

References for table 1

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