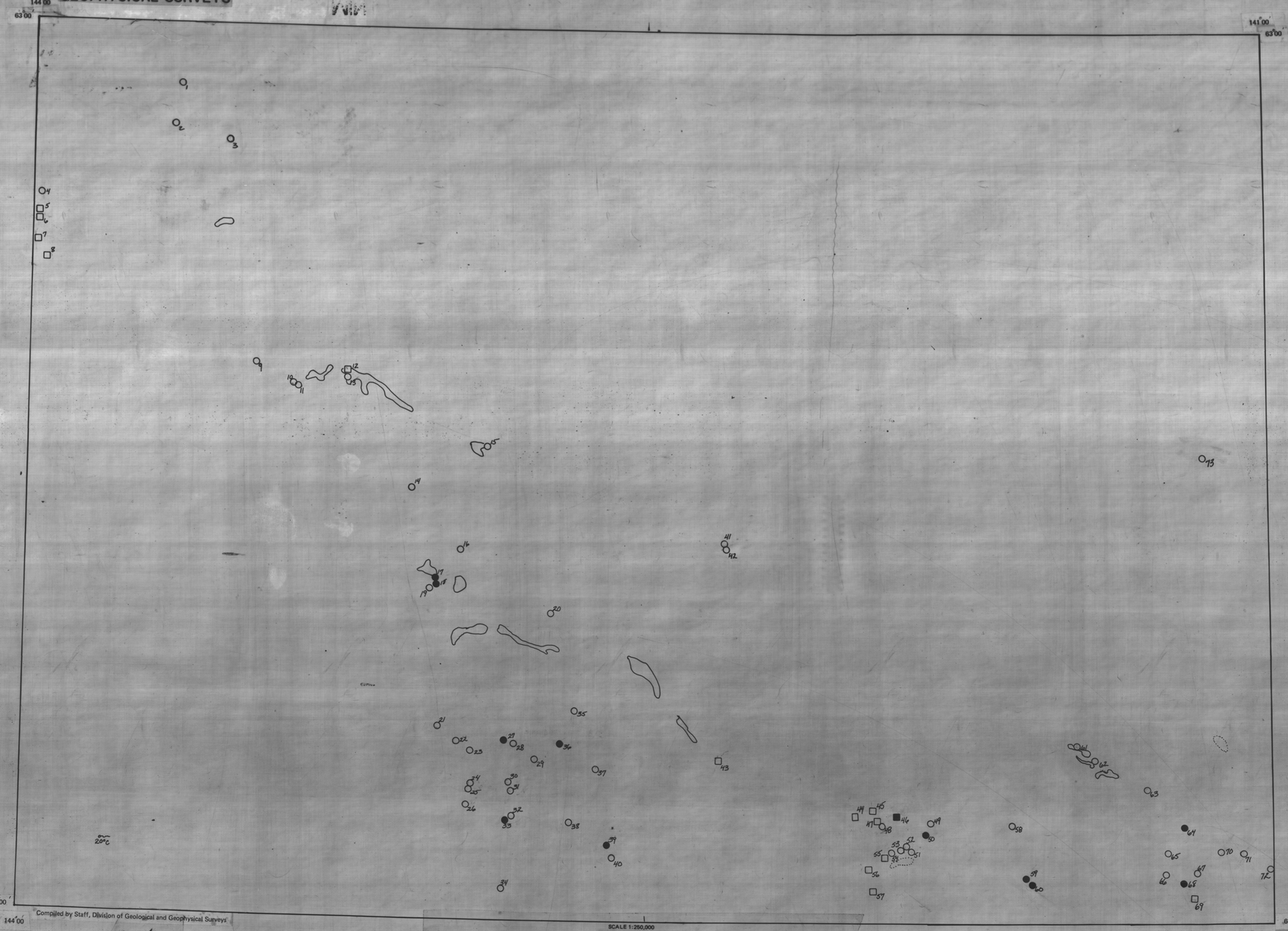

MINERAL AND ENERGY RESOURCES, NABESNA QUADRANGLE, ALASKA

Map number	Prospect name and description	Commodity	Reference (listed below)
	Minerals		
1	Unnamed	Nephrite	5
2	Unnamed	Cu	4, 5
3	Unnamed	Cu	4, 5
4	Unnamed	Cu	5
5	Slope Creek	Au, Ag	4, 5
6	Boulder Creek	Au	4, 5
7	Willow Creek	Au	4, 5
8	Abtell	Au	4
9	Unnamed	Au, Pb, Zn	
10	Rock Creek	Mo	4, 5
11	Rock Creek	Corundum	5
12	Trail Creek	Au	4, 5
13	Unnamed	Pb, Ag	4
14	Boyden	Cu	4, 5
15	Unnamed	Cu	4, 5
16	Unnamed	Cu	4, 5
17, 18	Golden Eagle group; Rambler Mine; Nabesna Mine; Skarn deposits at a quartz diorite-limestone contact. Gold production at the Nabesna mine of $1.9 million, all before 1940.	Au, Cu, Ag	2, 4, 5
19	Royal Development Co.	Au	5
20	Camp Creek	Cu	4, 5
21	Monte Cristo Creek; Marie Nabesna	Mo	4, 5
22	Unnamed	Au, Ag, Pb, Zn	4, 5
23	Nabesna River	Cu, Ag, Zn	4, 5
24	Unnamed	Cu	4, 5
25	Unnamed	Au, Co	4, 5
26	Unnamed	Au	4, 5
27	Orange Hill: Widespread porphyry type mineralization in granitic intrusive rocks; reserves estimated at 320 million tons containing 2.24 billion lbs of copper, 128 million lbs of molybdenum, and recoverable quantities of gold and silver.	Cu, Au, Mo, Ag	2, 4, 5
28	Lemon Claims	Cu, Au, Zn, Ag	5
29	Unnamed	Pb, Cu, Ag	4, 5
30	Unnamed	Cu	4, 5
31	Unnamed	Cu	4, 5
32	Unnamed	Cu, Zn	4, 5
33	Nabesna Glacier: Quartz-sulfide veins in altered quartz eye hypabyssal intrusive.	Cu, Zn, Au	2, 4, 5
34	Unnamed	Cu	4, 5
35	East Fork	Mo, Cu	4, 5
36	Bond Creek: Porphyry mineralization in granitic intrusives and meta-volcanic country rock; estimated reserves of 500 million tons containing 3 billion lbs copper, 200 million lbs molybdenum and significant quantities of gold and silver.	Cu, Mo, Au, Ag	2, 4, 5
37	Unnamed	Cu	4, 5
38	Unnamed	Cu, Pb, Zn	4, 5
39	Cross Creek: Strongly altered zone with breccia cemented by quartz and sulfides.	Cu, Zn, Pb, Ag	2, 4, 5
40	Unnamed	Cu, Pb, Zn	4, 5
41	Unnamed	Cu	5
42	Unnamed	Cu	5
43	Hooch Creek	Au	4
44	Dry Gulch	Au	4
45	Chavolda (Ptilcon Creek)	Au	4, 5
46	Glacier Creek, Pocrner Creek, Discovery Gulch, and Gold Run Creek: Produced a significant fraction of the $1 million placer gold production in the Chisana district. Most activity early 1900's, but mining continues to present.	Au	2, 4, 5
47	Big Eldorado Creek	Au	4, 5
48	Big Eldorado Lode	Cu, Au	4, 5
49	Unnamed	-	5
50	Bonanza Creek, Skookum Creek, Snow Gulch, Little Eldorado Creek, Coates Honey Creek: Bonanza Creek and its tributaries was the major gold producer in the Chisana district. It and Glacier Creek (#46) accounted for the majority of the $1 million production from the district; most of the activity was in 1913 and 1914 but mining continues to the present.	Au	4, 5
51	Erie	Au, Pb, Ag	4, 5
52	Unnamed	Au	4, 5
53	Cathenda (Johnson) Creek	Cu, Au	4, 5
54	Unnamed	Au	5
55	Cathenda (Johnson) Creek	Au	4, 5
56	Cathenda (Johnson) Creek	Au	4, 5
57	Bryan Creek	Au	4, 5
58	Johnson Creek	Cu	4, 5
59-60	Carl Creek: Porphyry mineralization in intrusive rocks; reserves estimated at 16 million tons containing 64 million lbs of copper and significant quantities of gold, silver, and molybdenum.	Cu, Mo, Au, Ag	2, 4, 5
61	O'Hara, Sulzer, Cosmopolitan, Copper Group	Cu	4, 5
62	Reynolds, Butte Creek, Copper Creek	Cu	4, 5
63	Unnamed	Cu	4, 5
64	Boultoff: Porphyry type mineralization in intrusive rocks; reserves estimated at 160 million lbs of copper and significant quantities of gold and silver.	Cu, Au, Ag	2, 4, 5
65	Gravel Creek	Cu	4, 5
66	Unnamed	Cu	4, 5
67	Unnamed	Cu	4, 5
68	Horsfeld: Porphyry type mineralization in intrusive rocks; reserves estimated at 60 million tons containing 240 million lbs of copper and significant quantities of silver and gold.	Cu, Au, Ag	2, 4, 5
69	Horsfall	Au	4
70	Unnamed	Pb, Ag, Au	4, 5
71	Unnamed	Cu, Ag	4, 5
72	Eureka Creek	Cu, Au, Pb, Zn	4
73	Unnamed	Chromite	5

Oil and Gas

No petroleum resources are known in the Nabesna Quadrangle and the potential for them is considered poor due to limited source and reservoir rocks.

Coal

Lignite (Cappe, 1915) and well preserved leaves and plants (Richter, 1976) are reported south of Cathenda Creek. There is an unsubstantiated report of an 8 ft lignite seam located on the north side of the Nutzotin Range 7 mi west of the international boundary and about 1 mi south of the mountain front on a tributary to Beaver Creek (Cappe, 1915). As in the McCarthy Quadrangle, any coals that formed, did so in small, intermontane basins and are likely to be thin and discontinuous.

Carbonate Rocks

Carbonate rocks (including limestone, marble, and dolomite) that have many industrial uses occur throughout the quadrangle. Additional descriptions of these undeveloped resources are found in Richter (1976).

Geothermal

The presence of active volcanism on Mt. Wrangell and young volcanic rocks throughout the Wrangell Mountains indicate a region of high heat flow to the surface and a moderate to high potential for geothermal resources. With the exception of one low temperature (20°C) geothermal spring near the Copper Glacier, there are no positive indications of geothermal water, but there has been little detailed geophysical and geochemical exploration.

REFERENCES

1. Cappe, S.R., 1915, Mineral resources of the Chisana-White River district in Brooks, A.H., and others, Mineral resources of Alaska, report on progress of investigations in 1914: U.S. Geological Survey Bulletin 622, p. 227-278.
2. Cobb, Edward H. and Richter, D.H., 1980, Summaries of data on and lists of references to metallic and selected nonmetallic mineral deposits in the Nabesna Quadrangle, Alaska: U.S. Geological Survey Open-file Report 80-827.
3. Richter, D.H., 1976, Geologic map of the Nabesna Quadrangle, Alaska: U.S. Geological Survey Miscellaneous Investigations Map I-933.
4. Richter, D.H., and Matson, N.A., Jr., 1972, Metallic mineral resources map of the Nabesna Quadrangle, Alaska: U.S. Geological Survey Miscellaneous Field Studies Map MF-422, 1 sheet, scale 1:250,000.
5. Richter, D.H., Singer, D.A., and Cox, D.P., 1975, Mineral resources map of the Nabesna Quadrangle, Alaska: U.S. Geological Survey Miscellaneous Field Studies Map MF-655K, 1 sheet, scale 1:250,000.

EXPLANATION

This map shows the approximate location of all reported mineral deposits and areas of potential for oil and gas, geothermal, coal, and carbonate rock resources within this quadrangle. The reader is guided to the list of references on this map for additional information regarding these resources.

Minerals

Significant size or exploration potential: Lode deposit; Placer deposit

Small or unevaluated: Lode deposit; Placer deposit

Numbers refer to accompanying table

Oil and Gas

Dry and abandoned oil and gas well

Geothermal

Area of high geothermal potential

Geothermal spring and temperature

Coal

Coal location (approximate)

Carbonate Rocks

Carbonate rock location (approximate)

Note: This map is intended only for general land management and planning purposes; site specific projects will require ground verification of the information presented.