

Geology from C. J. Campbell and others (in press).  
Map geology approved by Warren Yeend, August 9, 1978.

**INTRODUCTION**  
This report is part of the Mineral Resource Assessment Program (MRAP) which is a part of the National Resource Assessment Program (NRAP) under the leadership of the U.S. Geological Survey. The MRAP is designed to provide a systematic and comprehensive evaluation of the mineral resources of the Healy Quadrangle, Alaska. The NRAP is a nationwide program to evaluate the mineral resources of the United States.

**SCOPE OF STUDY**  
The study area is the Healy Quadrangle, Alaska, which is located in the central part of the State. The quadrangle covers an area of approximately 100 square miles. The study area is bounded by the Hines Creek Fault to the north, the Monahan Thrust to the south, and the Hines Creek Fault to the west. The study area is bounded by the Hines Creek Fault to the north, the Monahan Thrust to the south, and the Hines Creek Fault to the west.

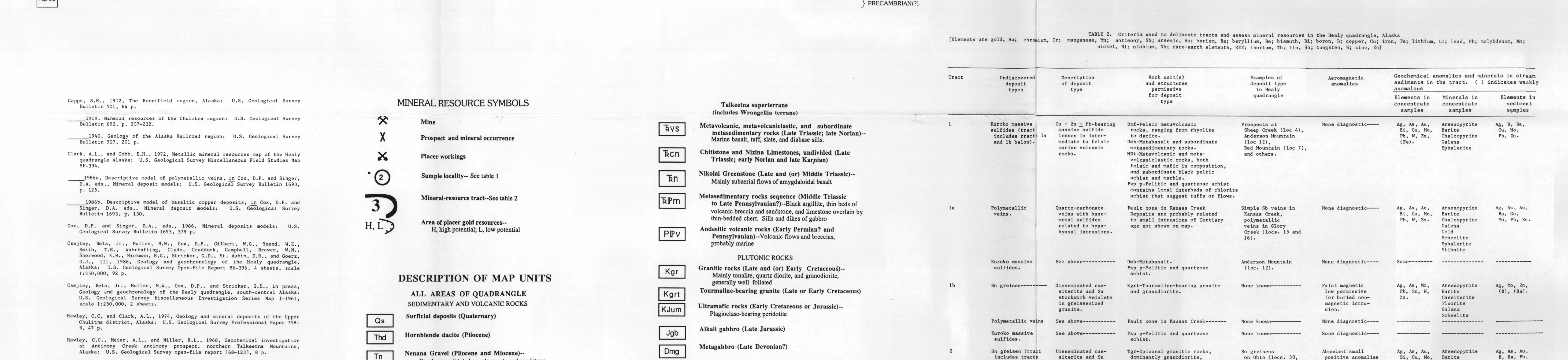
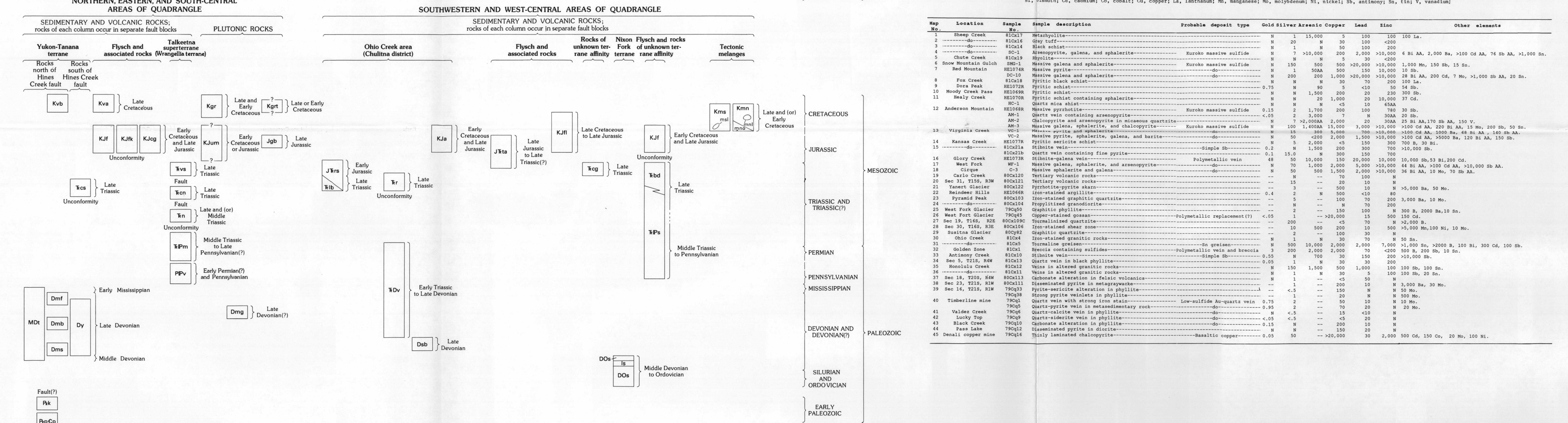
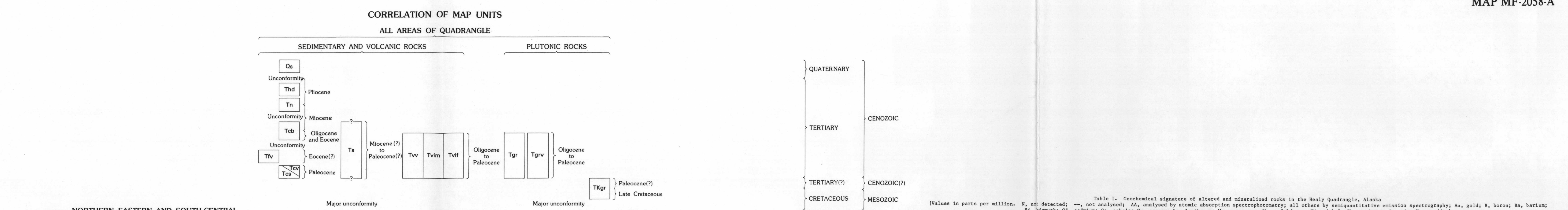
**STRUCTURE AND STRATIGRAPHY**  
The structure of the Healy Quadrangle is characterized by the Hines Creek Fault, the Monahan Thrust, and the Hines Creek Fault. The Hines Creek Fault is a normal fault that trends north-south through the center of the quadrangle. The Monahan Thrust is a thrust fault that trends east-west through the southern part of the quadrangle. The Hines Creek Fault is a normal fault that trends north-south through the center of the quadrangle.

**SEDIMENTARY AND VOLCANIC ROCKS**  
The sedimentary and volcanic rocks of the Healy Quadrangle are primarily of Tertiary and Quaternary age. The Tertiary rocks include the Hines Creek Formation, the Monahan Formation, and the Hines Creek Formation. The Quaternary rocks include the Hines Creek Formation, the Monahan Formation, and the Hines Creek Formation.

**PLUTONIC ROCKS**  
The plutonic rocks of the Healy Quadrangle are primarily of Tertiary and Quaternary age. The Tertiary rocks include the Hines Creek Formation, the Monahan Formation, and the Hines Creek Formation. The Quaternary rocks include the Hines Creek Formation, the Monahan Formation, and the Hines Creek Formation.

**MINERAL RESOURCES**  
The mineral resources of the Healy Quadrangle are primarily of Tertiary and Quaternary age. The Tertiary rocks include the Hines Creek Formation, the Monahan Formation, and the Hines Creek Formation. The Quaternary rocks include the Hines Creek Formation, the Monahan Formation, and the Hines Creek Formation.

**CONCLUSIONS**  
The mineral resources of the Healy Quadrangle are primarily of Tertiary and Quaternary age. The Tertiary rocks include the Hines Creek Formation, the Monahan Formation, and the Hines Creek Formation. The Quaternary rocks include the Hines Creek Formation, the Monahan Formation, and the Hines Creek Formation.



**MINERAL RESOURCE SYMBOLS**

○	Native gold
○	Native silver
○	Native copper
○	Native lead
○	Native zinc
○	Native iron
○	Native nickel
○	Native cobalt
○	Native manganese
○	Native selenium
○	Native tellurium
○	Native vanadium
○	Native niobium
○	Native tantalum
○	Native rhenium
○	Native osmium
○	Native iridium
○	Native platinum
○	Native palladium
○	Native rhodium
○	Native ruthenium
○	Native silver
○	Native gold
○	Native copper
○	Native lead
○	Native zinc
○	Native iron
○	Native nickel
○	Native cobalt
○	Native manganese
○	Native selenium
○	Native tellurium
○	Native vanadium
○	Native niobium
○	Native tantalum
○	Native rhenium
○	Native osmium
○	Native iridium
○	Native platinum
○	Native palladium
○	Native rhodium
○	Native ruthenium

**DESCRIPTION OF MAP UNITS**

Unit	Symbol	Description	Age	Remarks
Q1	Q1	Quaternary alluvium	Quaternary	
Q2	Q2	Quaternary glacial drift	Quaternary	
Q3	Q3	Quaternary glacial till	Quaternary	
Q4	Q4	Quaternary glacial outwash	Quaternary	
Q5	Q5	Quaternary glacial drift	Quaternary	
Q6	Q6	Quaternary glacial till	Quaternary	
Q7	Q7	Quaternary glacial outwash	Quaternary	
Q8	Q8	Quaternary glacial drift	Quaternary	
Q9	Q9	Quaternary glacial till	Quaternary	
Q10	Q10	Quaternary glacial outwash	Quaternary	
Q11	Q11	Quaternary glacial drift	Quaternary	
Q12	Q12	Quaternary glacial till	Quaternary	
Q13	Q13	Quaternary glacial outwash	Quaternary	
Q14	Q14	Quaternary glacial drift	Quaternary	
Q15	Q15	Quaternary glacial till	Quaternary	
Q16	Q16	Quaternary glacial outwash	Quaternary	
Q17	Q17	Quaternary glacial drift	Quaternary	
Q18	Q18	Quaternary glacial till	Quaternary	
Q19	Q19	Quaternary glacial outwash	Quaternary	
Q20	Q20	Quaternary glacial drift	Quaternary	
Q21	Q21	Quaternary glacial till	Quaternary	
Q22	Q22	Quaternary glacial outwash	Quaternary	
Q23	Q23	Quaternary glacial drift	Quaternary	
Q24	Q24	Quaternary glacial till	Quaternary	
Q25	Q25	Quaternary glacial outwash	Quaternary	
Q26	Q26	Quaternary glacial drift	Quaternary	
Q27	Q27	Quaternary glacial till	Quaternary	
Q28	Q28	Quaternary glacial outwash	Quaternary	
Q29	Q29	Quaternary glacial drift	Quaternary	
Q30	Q30	Quaternary glacial till	Quaternary	
Q31	Q31	Quaternary glacial outwash	Quaternary	
Q32	Q32	Quaternary glacial drift	Quaternary	
Q33	Q33	Quaternary glacial till	Quaternary	
Q34	Q34	Quaternary glacial outwash	Quaternary	
Q35	Q35	Quaternary glacial drift	Quaternary	
Q36	Q36	Quaternary glacial till	Quaternary	
Q37	Q37	Quaternary glacial outwash	Quaternary	
Q38	Q38	Quaternary glacial drift	Quaternary	
Q39	Q39	Quaternary glacial till	Quaternary	
Q40	Q40	Quaternary glacial outwash	Quaternary	
Q41	Q41	Quaternary glacial drift	Quaternary	
Q42	Q42	Quaternary glacial till	Quaternary	
Q43	Q43	Quaternary glacial outwash	Quaternary	
Q44	Q44	Quaternary glacial drift	Quaternary	
Q45	Q45	Quaternary glacial till	Quaternary	
Q46	Q46	Quaternary glacial outwash	Quaternary	
Q47	Q47	Quaternary glacial drift	Quaternary	
Q48	Q48	Quaternary glacial till	Quaternary	
Q49	Q49	Quaternary glacial outwash	Quaternary	
Q50	Q50	Quaternary glacial drift	Quaternary	
Q51	Q51	Quaternary glacial till	Quaternary	
Q52	Q52	Quaternary glacial outwash	Quaternary	
Q53	Q53	Quaternary glacial drift	Quaternary	
Q54	Q54	Quaternary glacial till	Quaternary	
Q55	Q55	Quaternary glacial outwash	Quaternary	
Q56	Q56	Quaternary glacial drift	Quaternary	
Q57	Q57	Quaternary glacial till	Quaternary	
Q58	Q58	Quaternary glacial outwash	Quaternary	
Q59	Q59	Quaternary glacial drift	Quaternary	
Q60	Q60	Quaternary glacial till	Quaternary	
Q61	Q61	Quaternary glacial outwash	Quaternary	
Q62	Q62	Quaternary glacial drift	Quaternary	
Q63	Q63	Quaternary glacial till	Quaternary	
Q64	Q64	Quaternary glacial outwash	Quaternary	
Q65	Q65	Quaternary glacial drift	Quaternary	
Q66	Q66	Quaternary glacial till	Quaternary	
Q67	Q67	Quaternary glacial outwash	Quaternary	
Q68	Q68	Quaternary glacial drift	Quaternary	
Q69	Q69	Quaternary glacial till	Quaternary	
Q70	Q70	Quaternary glacial outwash	Quaternary	
Q71	Q71	Quaternary glacial drift	Quaternary	
Q72	Q72	Quaternary glacial till	Quaternary	
Q73	Q73	Quaternary glacial outwash	Quaternary	
Q74	Q74	Quaternary glacial drift	Quaternary	
Q75	Q75	Quaternary glacial till	Quaternary	
Q76	Q76	Quaternary glacial outwash	Quaternary	
Q77	Q77	Quaternary glacial drift	Quaternary	
Q78	Q78	Quaternary glacial till	Quaternary	
Q79	Q79	Quaternary glacial outwash	Quaternary	
Q80	Q80	Quaternary glacial drift	Quaternary	
Q81	Q81	Quaternary glacial till	Quaternary	
Q82	Q82	Quaternary glacial outwash	Quaternary	
Q83	Q83	Quaternary glacial drift	Quaternary	
Q84	Q84	Quaternary glacial till	Quaternary	
Q85	Q85	Quaternary glacial outwash	Quaternary	
Q86	Q86	Quaternary glacial drift	Quaternary	
Q87	Q87	Quaternary glacial till	Quaternary	
Q88	Q88	Quaternary glacial outwash	Quaternary	
Q89	Q89	Quaternary glacial drift	Quaternary	
Q90	Q90	Quaternary glacial till	Quaternary	
Q91	Q91	Quaternary glacial outwash	Quaternary	
Q92	Q92	Quaternary glacial drift	Quaternary	
Q93	Q93	Quaternary glacial till	Quaternary	
Q94	Q94	Quaternary glacial outwash	Quaternary	
Q95	Q95	Quaternary glacial drift	Quaternary	
Q96	Q96	Quaternary glacial till	Quaternary	
Q97	Q97	Quaternary glacial outwash	Quaternary	
Q98	Q98	Quaternary glacial drift	Quaternary	
Q99	Q99	Quaternary glacial till	Quaternary	
Q100	Q100	Quaternary glacial outwash	Quaternary	

**MINERAL RESOURCE ASSESSMENT MAP OF THE HEALY QUADRANGLE, ALASKA**

By  
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With a section on PLACER GOLD IN THE HEALY QUADRANGLE by Warren Yeend