

EXPLANATION

BEDDED ROCKS

- Qag Alluvium and glacial material
Qs Pleistocene (?) Gubik Formation
Regional UNCONFORMITY
T3 Siltstone and sandstone
UNCONFORMITY (?)
Tc Conglomerate and sandstone

BROOKS RANGE SEQUENCE

NUAK HULSE SEQUENCE

DELONG MOUNTAINS-SOUTHERN FOOTHILLS SEQUENCE

SOUTHERN FOOTHILLS CONDENSED SEQUENCE

NORTHERN FOOTHILLS AND ARCTIC PLAIN SEQUENCE

DISCONFORMITY (?)

- RBh Shale and chert
RPs Sandstone and siltstone
Rc Conglomerate and sandstone
Rm Middle Triassic
Rn Devonian
Rd Devonian
Rm Middle Triassic
Rn Devonian
Rd Devonian
Rm Middle Triassic
Rn Devonian
Rd Devonian

IGNEOUS ROCKS

- G Granite
M Mafic and ultramafic rocks

GEOLOGIC SYMBOLS

- Contact
Boundary
Fault
Thrust fault
Major thrust fault
Anticline
Syncline
Core test location
Test well location
Oil well
Gas well
Oil field

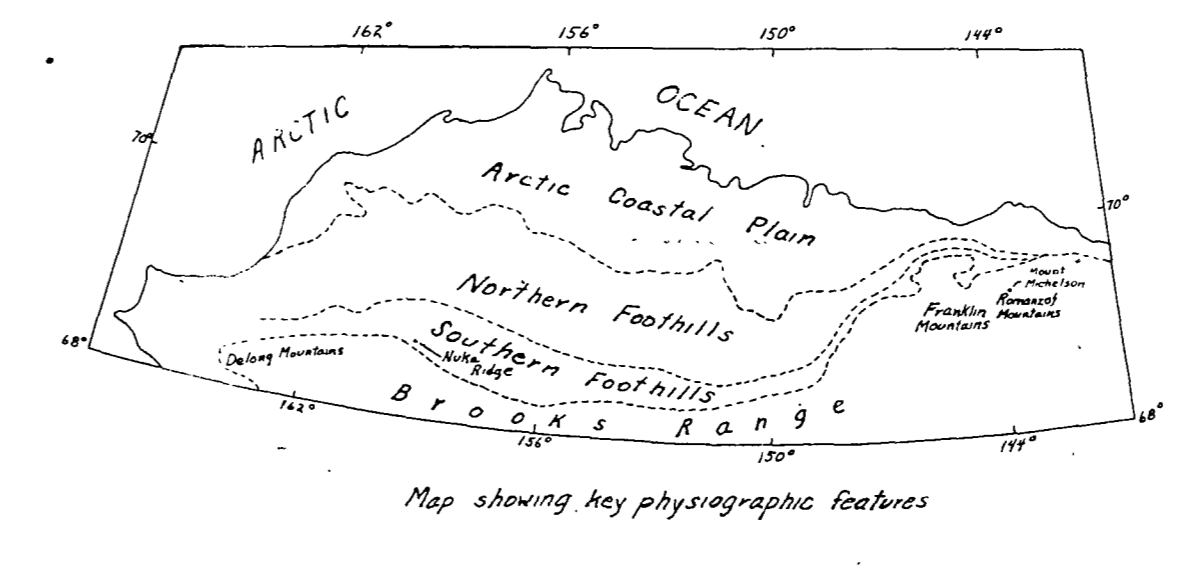
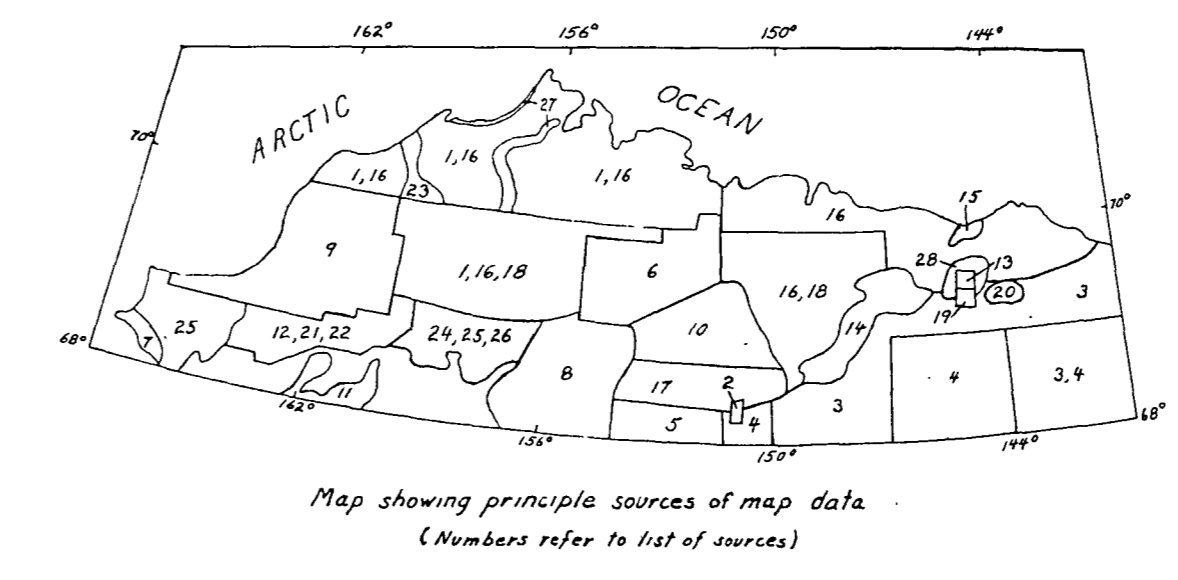


Table of wells, showing subsurface stratigraphy (autochthonous)

Table with columns for Unit Penetrated, Number, Name, and Total Depth of Well. Rows list geological units like Silt, Pleistocene, Gubik Formation, etc., and well identifiers like South Barrow Well 1, etc.

Sources of Well Data

- Robinson, F. M., 1956, Core tests and test wells, Omalik area, Alaska: U.S. Geol. Survey Prof. Paper 305-A, p. 1-70.
Collins, F. R., 1958, Test wells, Umiat area, Alaska: U.S. Geol. Survey Prof. Paper 305-B.
Robinson, F. M., 1958, Test wells, Gubik area, Alaska: U.S. Geol. Survey Prof. Paper 305-C.
Collins, F. R., 1958, Test wells, Topogoruk area, Alaska: U.S. Geol. Survey Prof. Paper 305-D.
Robinson, F. M., 1958, Test wells, Grandstand area, Alaska: U.S. Geol. Survey Prof. Paper 305-E.
Collins, F. R., 1958, Test wells, Meade and Naolok areas, Alaska: U.S. Geol. Survey Prof. Paper 305-F.
Robinson, F. M., 1959, Test wells, Titaluk and Knifefield areas, Alaska: U.S. Geol. Survey Prof. Paper 305-G.
Collins, F. R., 1959, Test wells, Square Lake and Wolf Creek areas, Alaska: U.S. Geol. Survey Prof. Paper 305-H.
Robinson, F. M., 1959, Test wells, Simpson area, Alaska: U.S. Geol. Survey Prof. Paper 305-I.
Collins, F. R., 1961, Core tests and test wells, Barrow area, Alaska: U.S. Geol. Survey Prof. Paper 305-J.
Robinson, F. M., and Collins, F. R., 1959, Core test, Sentinel Hill area, and Test well, Fish Creek area, Alaska: U.S. Geol. Survey Prof. Paper 305-K.

Sources of Map Data (Numbers refer to index map)

- 1. Black, R. F., 1964, Gubik Formation of Quaternary age in northern Alaska: U.S. Geol. Survey Prof. Paper 305-C.
2. Bowsher, A. L., and Dutro, J. T., Jr., 1957, The Paleozoic section in the Shishin Lake area, central Brooks Range, Alaska: U.S. Geol. Survey Prof. Paper 303-A.
3. Brosgé, W. P., Dutro, J. T., Jr., Mangus, M. D., and Reiser, H. N., 1960, Geologic map of the eastern Brooks Range, Alaska: U.S. Geol. Survey Open-File Report.
4. Brosgé, W. P., and Reiser, H. N., 1964, unpublished field and photogeologic compilation.
5. Brosgé, W. P., Reiser, H. N., Patton, W. W., Jr., and Mangus, M. D., 1960, Geologic map of the Killik-Saviluk Rivers region, Brooks Range, Alaska: U.S. Geol. Survey Open-File Report.
6. Brosgé, W. P., and Whittington, C. L., 1963, Preliminary geologic map of the Umiat-Naolok Creek region, Alaska: U.S. Geol. Survey Open-File Report.
7. Campbell, R. H., (19 ), Areal geology in the vicinity of the Chariot site, northwestern Alaska.
8. Chapman, R. M., Detterman, R. L., and Mangus, M. D., 1964, Geology of the Killik-Saviluk Rivers region, Alaska: U.S. Geol. Survey Prof. Paper 303-F.
9. Chapman, R. M., and Soble, E. G., 1960, Geology of the Utkok-Gorvin region, northwestern Alaska: U.S. Geol. Survey Prof. Paper 303-G.
10. Detterman, R. L., Bickel, R. S., and Grye, George, 1963, Geology of the Chariot River region, Alaska: U.S. Geol. Survey Prof. Paper 303-H.
11. Dutro, J. T., Jr., Lechenbruch, M. C., and Lechenbruch, A. H., 1951, Stratigraphy and structure of the western Kotik district, Alaska: U.S. Geol. Survey, Geol. Invest., Naval Petroleum Reserve, Alaska; Rept. 39 (open-file report).
12. Dutro, J. T., Jr., and Soble, E. G., 1963, unpublished field and photogeologic compilation.
13. Holmes, G. W., and Lewis, C. R., 1961, Glacial geology of the Mt. Chamberlin area, Brooks Range, Alaska: in Geology of the Arctic, vol. II, pp. 848-864; Univ. of Toronto Press.
14. Keller, A. S., Morris, R. H., and Detterman, R. L., 1961, Geology of the Shaviovik and Sapvanirktok Rivers region, Alaska: U.S. Geol. Survey Prof. Paper 303-D.
15. Morris, R. H., 1957, Reconnaissance study of the Marsh anticline, northern Alaska: U.S. Geol. Survey Open-File Report.
16. O'Sullivan, J. B., 1961, Quaternary geology of the Arctic Coastal Plain, northern Alaska: Iowa State Univ. of Science and Technology, 191 p., unpubl. Ph.D. thesis.
17. Patton, W. W., Jr., and Tailleux, I. L., 1964, Geology of the Killik-Tkiklik region, Alaska: U.S. Geol. Survey Prof. Paper 303-G.
18. Preliminary photogeology maps, 1949 to 1952; U.S. Geol. Survey Geol. Inv., Naval Petroleum Reserve, Alaska: U.S. Geol. Survey Open-File Report.
19. Reed, B. L., 1964, written communication.
20. Soble, E. G., 1959, Preliminary report on sedimentary and metamorphic rocks in part of the Homanor Mountains, Brooks Range, northeastern Alaska: U.S. Geol. Survey Open-File Report.
21. Soble, E. G., Dutro, J. T., Jr., and Morris, R. H., 1951, Preliminary report on the stratigraphy and structure of the Britwood-Noluk area, Alaska: U.S. Geol. Survey Geol. Inv. Naval Petroleum Reserve, Alaska, Prelim. Rept. 39; U.S. Geol. Survey Open-File Report.
22. Soble, E. G., and Mangus, M. D., 1951, Stratigraphy and structure of the upper Utkok-Kokolik Rivers area, Alaska: U.S. Geol. Survey Geol. Inv., Naval Petroleum Reserve, Alaska, Reg. Rept. 45; U.S. Geol. Survey Open-File Report.
23. Stefansson, Karl, and Mangus, M. D., 1949, Stratigraphy and structure of the area of the Avvik and Kila River, Alaska: U.S. Geol. Survey Geol. Inv., Naval Petroleum Reserve, Alaska, Reg. Rept. 28; U.S. Geol. Survey Open-File Report.
24. Tailleux, I. L., 1964, unpublished field and photogeologic compilation.
25. Tailleux, I. L., and Kent, B. H., 1951, Stratigraphy and structure of the southern foothills section between the Tataluk and Kiliga Rivers, Alaska: U.S. Geol. Survey Geol. Inv., Naval Petroleum Reserve, Alaska, Reg. Rept. 43; U.S. Geol. Survey Open-File Report.
26. Tailleux, I. L., Kent, B. H., and Reiser, H. N., 1951, Preliminary report on the stratigraphy and structure of the Kiliga River area, Alaska: U.S. Geol. Survey Geol. Inv., Naval Petroleum Reserve, Alaska, Prelim. Rept. 37; U.S. Geol. Survey Open-File Report.
27. Weber, E. J., 1947, Stratigraphy and structure of the area of the Heade and Kuk Rivers and Point Barrow: U.S. Geol. Survey Geol. Inv., Naval Petroleum Reserve, Alaska, Reg. Rept. 6; U.S. Geol. Survey Open-File Report.
28. Whittington, C. L., 1958, written communication.

Sources of Interpretive Data

- Brosgé, W. P., Dutro, J. T., Jr., Mangus, M. D., and Reiser, H. N., 1960, Paleozoic sequence in eastern Brooks Range, Alaska: Am. Assoc. Petroleum Geologists Bull., v. 46, no. 15, p. 2174-2193.
Grantz, Arthur, 1964, oral communication.
Jones, D. L., 1964, oral communication.
Jones, D. L., and Grantz, Arthur, 1964, Stratigraphic and structural significance of Cretaceous fossils from Titaluk Formation, northern Alaska: Am. Assoc. Petroleum Geologists Bull., v. 48, no. 3, p. 1462-74.
Milek, Andrew, 1955, The tectonics of the Brooks Range: Geol. Inv. Naval Petroleum Reserve, Alaska, Rept. 35-6; U.S. Geol. Survey Open-File Report.
Milek, Andrew, 1955, Tectonics of the eastern Brooks Mountains: Geol. Inv. Naval Petroleum Reserve, Alaska, Rept. 33-6; U.S. Geol. Survey Open-File Report.
Reiser, H. N., 1964, oral communication.
Silberling, H. J., 1964, oral communication.
Tailleux, I. L., 1964, oral communication.
Tailleux, I. L., and Kent, B. H., 1953, Progress report on the Kiliga anticline: U.S. Geol. Survey Geol. Inv., Naval Petroleum Reserve, Alaska, Spec. Rept. 40; U.S. Geol. Survey Open-File Report.

PRELIMINARY GEOLOGIC MAP OF NORTHERN ALASKA

Compiled by Ernest H. Lathram

1965

This map is preliminary and has not been edited or reviewed for conformity with U.S. Geological Survey standards