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GEOLOGICAL SURVEY

For Release PM's MAY 26, 1953

TERTIARY ROCKS OF THE LITUYA DISTRICT, ALASKA MAPPED

As part of a Geological Survey program to investigate the petroleum possibilities of the Gulf of Alaska Tertiary province, a reconnaissance study of the Lituya district portion of a 300-mile-long belt on the northeast coast of the Gulf has been completed and a geologic map and columnar section made available for public inspection, Secretary of the Interior Douglas McKay announced today.

In this part of the Gulf of Alaska sedimentary rocks of Tertiary age are either exposed or believed to underlie lowlands covered by ice or alluvium. At one locality an oil film and oil odor was noted near the crest of an anticline.

The geologic map and sections are preliminary, pending completion of laboratory study of rock specimens and fossil collections, and of additional field work planned by the Geological Survey for the 1953 field season.

The Lituya district, on the northeast coast of the Gulf of Alaska, extends from the Fairweather Glacier about 40 miles southeast to Icy Point and from the shore inland a distance of two to seven miles to the fault-scarp front of the Fairweather Range of the St. Elias Mountains. Field work in 1952 indicates that rocks of Tertiary age, largely marine clastic sediments but including some continental clastic sediments and some volcanic rocks, are exposed intermittently in a belt 25 miles long and 2 to  $4\frac{1}{2}$  miles wide between Lituya Bay and Icy Point in the southeastern part of the Lituya district. The sequence of Tertiary rocks, which is provisionally divided into four lithologic units, is in part in depositional contact and in part in fault contact with metamorphosed sedimentary and volcanic rocks probably of Mesozoic age. The predominantly homoclinal structure of the Tertiary belt is modified for a distance of several miles southeast of Lituya Bay by a shallow syncline and a strongly asymmetric anticline.

The geologic map and chart, which were compiled by Don J. Miller, show the areal distribution and attitude of the Tertiary rock units and their relation to Mesozoic (?) and Quaternary rock units in the southeastern part of the Lituya district; a structure section drawn across the belt of Tertiary rocks; and columnar sections showing the thickness and lithology of the Tertiary rocks as exposed at four localities in the district. The base for the geologic map is a topographic map on a scale of one inch to approximately one mile, with a contour interval of 200 feet, compiled from aerial photographs by D. L. Rossman.

The geologic map and chart, which are reproduced by the blueprint process on two sheets measuring 25 by 30 inches and 19 by 35 inches, respectively, have been placed on file for public inspection at the following Geological Survey offices: GSA Building, Washington, D. C.; 100 Old Mint Building, San Francisco, California; Subport, Juneau, Alaska; Office of Regional Mining Supervisor, Conservation Division, Anchorage, Alaska; and Alaskan Geology Branch, College, Alaska. The geologic map units are hand-colored on the file copies. Copies of the chart and the map, without color patterns but with geologic map units identified by letter symbols, are available for reproduction at private expense at the San Francisco and the College, Alaska offices of the Geological Survey.

DEPARTMENT OF THE INTERIOR

INFORMATION SERVICE

GEOLOGICAL SURVEY

For Release to PM's, July 29, 1953

ALASKAN PETROLEUM REPORTS PLACED IN ADDITIONAL DEPOSITORIES

Increased interest in reports by the Geological Survey on the petroleum possibilities of the Yakataga, Lituya districts, and Nelchina areas in Alaska, released to open file in May, has resulted in designating additional depositories for reports, Secretary of the Interior Douglas McKay announced today.

The reports resulted from field investigations by the Geological Survey's program of investigation of Alaska petroleum possibilities. Two of the reports, prepared by D. J. Miller, are titled "Preliminary Geologic Map and Structure Sections of the Bering Glacier A-2, A-3 and A-4 and Icy Bay D-2 and D-3 Quadrangles, Yakataga District, Alaska," and "Preliminary Geologic Map of Tertiary Rocks in Southeastern Part of the Lituya District, Alaska and Correlated Columnar Sections of Tertiary Rocks in the Lituya District, Alaska." The third by Arthur Grantz is titled "Preliminary Report on the Geology of the Nelchina Area, Alaska."

Two additional copies of each of these reports with hand-colored maps are being placed on open file for public inspection at Geological Survey Public Inquiries Offices, one at 468 New Custom House, Denver, Colorado, and the second at 529 Post Office and Court House, Los Angeles, California. As announced previously, copies are on open file for public inspection at the following other Geological Survey offices: Library, Room 1033, GSA Building, Washington, D. C.; 100 Old Mint Building, San Francisco, California; Support Building, Juneau, Alaska; Office of Regional Mining Supervisor, Conservation Division, Glover Building, Anchorage, Alaska; and Alaskan Geology Branch, Mines Building, College, Alaska. The geologic map units are hand-colored on the open-file copies. Copies of the charts and the maps, reproduced without color patterns but with geologic map units identified by letter symbols, are available at private expense by writing to the San Francisco office of the Survey.

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