

**Public-data File 90-5a**

**VITRINITE REFLECTANCE DATA FOR SOME EARLY TERTIARY THROUGH  
JURASSIC OUTCROP SAMPLES, NORTHEASTERN ALASKA**

by

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January 1990

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This public domain file contains vitrinite reflectance data from twelve outcrop samples from northeastern Alaska (Sagavanirktok A-2; B-2, B-3, and Phillip Smith Mountains B-5 quadrangles). The age of the rocks range from early Tertiary (Sagavanirktok Formation) to Jurassic (Okpikruak Formation). These samples were collected during the 1989 field season by Alaska Division of Geological and Geophysical Surveys (DGGS) and Alaska Division of Oil and Gas geologists. The vitrinite reflectance measurements were made by Dr. Alan Cook, Kelraville Consultants, Australia, through an agreement with Geotrack International (P.O. Box 4120, Melbourne University, Victoria 3052, Australia).

Each sample is listed in the data table with its rock unit; four of these samples list "Gilead Creek sandstone". The 'Gilead Creek sandstone' is an informal name for the sandstone and shale that crop out in the Gilead Creek area. The 'Gilead Creek sandstone' is discussed in detail in PDF 89-26b. Some previous workers have mapped these rocks as the lower member of the Ignek Formation, and still others have suggested that these rocks resemble formations and members of the Nanushuk and Colville Groups.

## VITRINITE REFLECTANCE DATA\*

Rock unit	Sample number	R <sub>0</sub> max	Range	# of readings	Latitude	Longitude
Okplkruak Formation (?)	89MR39C	0.55	0.35-0.66	31	68°28'48"N	149°23'39"W
Fortress Mtn. Formation	88BG1	0.71	0.65-0.76	25	68°29'36"N	149°28'03"W
Chandler Formation	89POS63C	0.72	0.58-0.80	29	68°43'40"N	149°01'47"W
Nanushuk Group	89MR24C	1.34	1.04-1.58	16	69°02'20"N	148°06'47"W
Kingak Formation	89MR16B	2.12	1.83-2.69	24	69°11'45"N	147°36'39"W
Kemik Sandstone (?)	89MR19C	1.11	0.95-1.37	6	69°18'43"N	147°40'25"W
'Gilead Creek sandstone'	89RR20-285	1.34	1.07-1.61	11	69°10'21"N	147°42'55"W
'Gilead Creek sandstone'	89RR20-500	1.30	1.09-1.56	6	69°10'16"N	147°42'55"W
'Gilead Creek sandstone'	89RR20-1826	1.25	1.08-1.48	26	69°10'04"N	147°47'06"W
'Gilead Creek sandstone'	89RR20-2722	1.26	1.03-1.55	21	69°09'40"N	147°48'06"W
Kingak Formation	89RR19A	1.43	1.18-1.60	4	69°10'34"N	147°42'47"W
Sagavanirktok Formation	89NS90B	0.46	0.40-0.54	28	69°26'01"N	148°31'24"W

\*Measurements by: Dr. Alan Cook, Kelraville Consultants, Australia, December, 1989