SPECIAL REPORT 32

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OIL AND GAS BASINS MAP OF ALASKA

COMPILED BY

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1983

SCALE 1:2,500,000

1 INCH EQUALS APPROXIMATELY 40 MILES

50 0 50 100 150 MILES

50 0 50 100 150 KILOMETERS

ALBERS EQUAL AREA PROJECTION

NATIONAL GEODETIC VERTICAL DATUM OF 1929

WATER DEPTH CURVES REFER TO MEAN SEA LEVEL MEAN LOWER LOW WATER

SATHYMETRY FROM SEWARD - 1980

BASE FROM U.S. GEOLOGICAL SURVEY NATIONAL ATLAS - 1970

EXPLANATION

FORMATION ABBREVIATIONS ON CROSS SECTIONS

COOK INLET, COPPER RIVER & KUSKOKWIM BASINS

- Tertiary undifferentiated
- Tertiary Kenai Fm.
- Tertiary Sterling Fm. (Pliocene-Miocene)
- Tertiary Beluga Fm. (Miocene)
- Tertiary Tyonek Fm. (Miocene-Oligocene)
- Tertiary Hemlock Conglomerate (Oligocene)
- Tertiary West Foreland Fm. (Eocene-Paleocene)
- Upper Cretaceous undifferentiated
- Upper Cretaceous granodiorites
- Upper Cretaceous Matanuska Fm.
- Upper Cretaceous Chickaloon Fm.
- Upper Cretaceous Valdez Gp.
- Lower Cretaceous Kennicott & Nelchina Fms.
- Jurassic/Cretaceous Talkeetna Fm. volcanics
- Jurassic/Cretaceous basement complex
- Upper Jurassic Naknek & Chinitna Fms.
- Middle & Lower Jurassic Gp.
- Middle & Lower Jurassic undifferentiated
- Lower Jurassic Talkeetna Fm.
- Triassic/Upper Paleozoic schists & ultramafics
- Permian/Pennsylvanian Belair Gp.

GULF OF ALASKA BASIN

- Quaternary eolianic sediments
- Tertiary Yakataga Fm. (Pliocene-Miocene)
- Tertiary eolianic sediments (Pliocene-Pliocene)
- Tertiary eolianic sediments (Miocene-Oligocene)
- Tertiary Katalla Fm. (Miocene-Eocene)
- Tertiary Poul Creek Fm.
- Tertiary Katalla & Tokun Fms. (Miocene-Eocene)
- Tertiary basalt
- Tertiary Orca Gp. (Eocene-Paleocene)

BEAUFORT, CHUKCHI, COLVILLE & HOPE BASINS

- Tertiary Nanushuk Fm.
- Tertiary/Cretaceous Sagavanirktok Fm.
- Upper Cretaceous undifferentiated
- Upper Cretaceous Colville Gp.
- Upper & Lower Cretaceous Nanushuk Gp.
- Upper & Lower Cretaceous undifferentiated
- Lower Cretaceous Fortress Mountain Fm.
- Deformed Cretaceous
- Upper Jurassic Kingak Fm.
- Jurassic Kingak Fm.
- Pre-Cretaceous
- Triassic undifferentiated
- Triassic to Permian
- Triassic to Mississippian
- Mississippian Lisburne Gp.
- Pre-Mississippian
- Devonian Kanayut Fm.
- Devonian Hunt Fork Fm.
- Lower Ellesmerian or Franklinian Sequence
- Upper Ellesmerian undifferentiated
- Paleozoic/Precambrian

MIDDLE TANANA BASIN

- Tertiary undifferentiated
- M-Ord. Mississippian & Lower Paleozoic/Precambrian

UNDISCOVERED POTENTIALLY RECOVERABLE HYDROCARBONS

RISKED MEAN VALUES IN BILLION BARRELS OIL EQUIVALENT

	USGS 1981*	NPC 1981**
Arctic National Wildlife Refuge	3.29	3.7
Beaufort Sea	1.54	2.5
Beaufort Shore	1.54	2.5
Bering Sea other	0.07	0.5
Bristol Bay-Alaska Shelf	0.07	0.3
Cook Inlet	2.00	
Copper River	0.02	
Gulf of Alaska	0.09	
Hope	0.08	0.4
Interior	0.00	
Kodiak Shelf	0.40	
Naval Petroleum Reserve/Alaska	1.00	4.1
Navarin Basin	1.08	4.0
Navarin Slope	0.13	0.2
North Chukchi	0.38	1.3
North Chukchi Shelf	0.38	1.3
North Chukchi Slope	0.40	0.6
North Slope other	4.77	4.4
Norton	0.08	0.8
Shelikof Straits	0.02	
Shumagin	0.05	
St. George	0.00	2.2
Umiat Plateau	0.00	<0.1
Yukon-Kandik	0.00	

*U.S. Geological Survey: Economically recoverable (excludes NGL)

**National Petroleum Council: Estimated undiscovered recoverable resource base (includes NGL)

BASIN CONTOURS

BERING SEA BASINS: ISOPACH CONTOURS OF PROSPECTIVE HYDROCARBON SECTION

ALL OTHER BASINS: STRUCTURAL CONTOURS OF PROSPECTIVE HYDROCARBON SECTION*

*MIDDLETON, YAKATAGA, AND EASTERN PART OF BEAUFORT BASINS CONTOURED ON SHALLOWER HORIZON

- < 3 KM
- 3–5 KM
- 5–8 KM
- > 8 KM

CONTOUR INTERVALS: 1 & 2 KM

MAP AND SECTION SYMBOLS

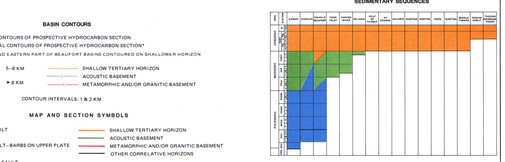
- NORMAL FAULT
- THRUST FAULT–BARBS ON UPPER PLATE
- STRIKE–SLIP FAULT

SIGNIFICANT WELLS

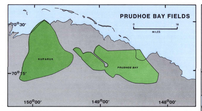
- DRILLING
- DRY OR ABANDONED
- OIL WELL
- OIL & GAS WELL
- DEEP SEA DRILLING PROJECT

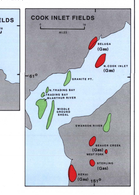
- SHALLOW TERTIARY HORIZON
- ACOUSTIC BASEMENT
- METAMORPHIC AND/OR GRANITIC BASEMENT
- OTHER CORRELATIVE HORIZONS
- LINE 2 SEISMIC SECTION
- A–A' STRUCTURAL SECTION
- "CENOZOIC"
- "MESOZOIC"
- "PALEOZOIC"

SEDIMENTARY SEQUENCES



PRODUCING OIL AND GAS FIELDS





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Sources of data too numerous to list individually

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