



MAP A. MINERAL RESOURCE TRACTS A, D, AND E

**EXPLANATION**

- 3 Sample locality mentioned in text
- 10 Outline of drainage basin
- Mineral resource tracts
  - A Tract A—Outcrops of the Devonian chert, permissive for sediment-hosted copper and sandstone-hosted lead-zinc deposits
  - B Tract B—Outcrops of the deep water facies of the Mississippian Alupah and Wachumath Limestones, permissive for SEDEX Zn-Pb and associated bedded barite deposits
  - C Tract C—Outcrops of the platform carbonate facies of the Mississippian Liburne Group, permissive for carbonate-hosted Zn-Pb deposits and warm-current phosphate deposits. Five large, discontinuous blocks are labeled C1-C5
  - D Tract D—Outcrops of the Jurassic and Triassic Otuk and Triassic Shublik Formations (undivided), permissive for upwelling phosphate deposits
  - E Tract E—Outcrops of the Permian Sikakpak Formation, permissive for bedded barite deposits

NOTE: The following correlation, list of map units, and list of symbols is for the geologic base map, shown here in gray.

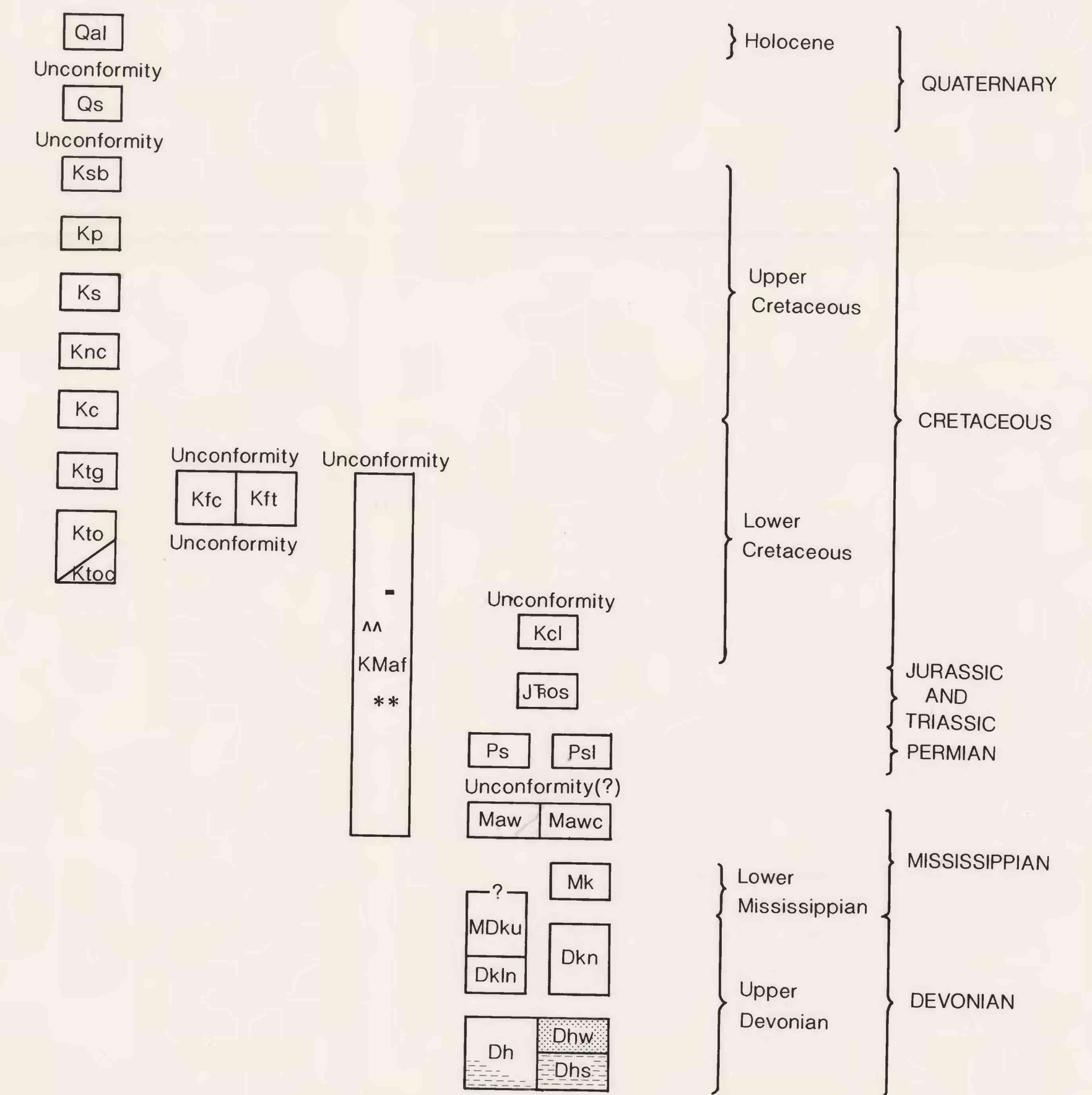
**LIST OF MAP UNITS**

Qal	Alluvium (Holocene)	Ps	Sikakpak Formation of Mull and others (Permian)
Qs	Surficial deposits (Quaternary)	Pd	Sadlerochit Group (Permian)
Ksb	Schrader Bluff Formation (Upper Cretaceous)	Li	Liburne Group (Mississippian)
Kp	Prince Creek Formation (Upper Cretaceous)	Maw	Alupah and Wachumath Limestones, undivided (Mississippian)
Ks	Scabee Formation (Upper Cretaceous)	Mawc	Chert facies
Knc	Ninuluk and Chandler (part) Formations, undivided (Upper Cretaceous)	Mk	Kayak Shale (Lower Mississippian)
Kc	Chandler Formation (part) (Upper and Lower Cretaceous)	MDku	Kanayut Conglomerate (upper part) (Lower Mississippian? and Upper Devonian)
Ktg	Tutu and Grandstand Formations, undivided (Lower Cretaceous)	Dkn	Kanayut Conglomerate (lower part) and Noatak Sandstone, undivided (Upper Devonian)
Kfc	Fortress Mountain Formation (restricted) (Lower Cretaceous)	Dkn	Kanayut Conglomerate (part) and Noatak Sandstone, undivided (Upper Devonian)
Kft	Conglomerate and sandstone unit	Dh	Hunt Fork Shale (Upper Devonian)
Klt	Turbidite sandstone and conglomerate unit	Dhw	Wacke member
Kto	Torok Formation (Lower Cretaceous)	Dhs	Shale member
Ktcc	Cobblestone sandstone unit		
Kmaf	Arctic Foothills assemblage (Lower Cretaceous to Mississippian)		
Kcl	Coquinal limestone unit (Lower Cretaceous; Valanginian)		
Jfos	Otuk (Jurassic and Triassic) and Shublik (Triassic) Formations, undivided		

**CONTACT**

- Major folds—Showing direction of plunge where known
- Anticline
- Overtuned anticline
- Syncline—Dashed where inferred position of strata that formed syncline is found in upper thrust plate and since been eroded
- Strongly asymmetrical syncline—Double dip arrow indicates steeper dipping limb
- Overtuned syncline
- Thrust fault—Sawtooth on upper plate
- Detachment surface—Approximately located. Sawtooth on upper plate
- Fault—Type uncertain; ticks indicate hanging-wall block
- Strike and dip of bedding—Inclined; overturned
- Shear zone—Melange; zone of pervasively sheared and structurally mixed strata
- Outcrop of radiolarian ribbon chert and very cherty rhythmically bedded limestone
- Outcrop of basalt—Locally pillowed
- Tectonic block of coquinal limestone in melange
- Well—Drilled for oil and gas; abandoned
- Outcrops of shaly strata in undivided part (Dh) of Hunt Fork Shale

**CORRELATION OF MAP UNITS**



MAP B. MINERAL RESOURCE TRACTS B AND C

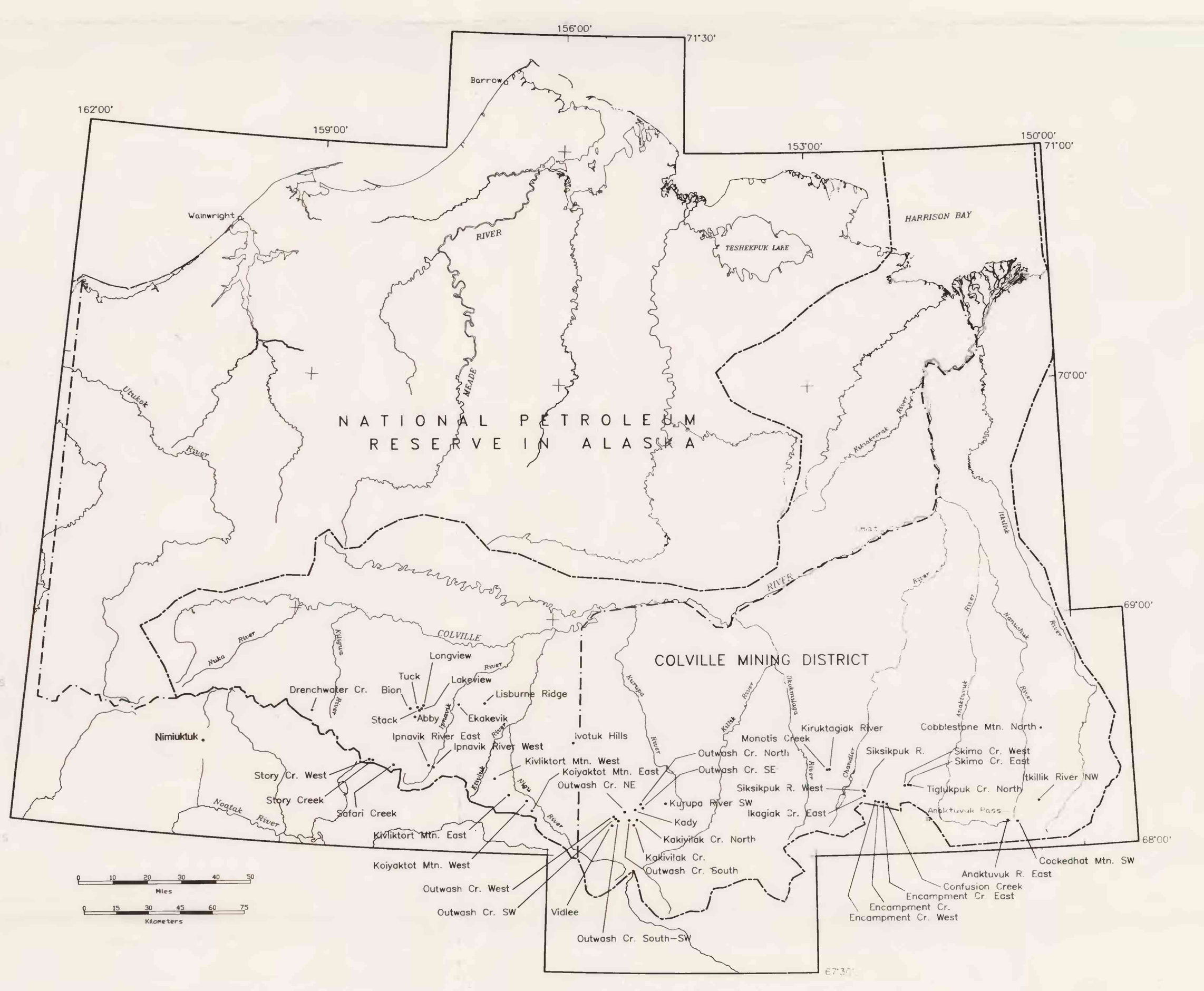
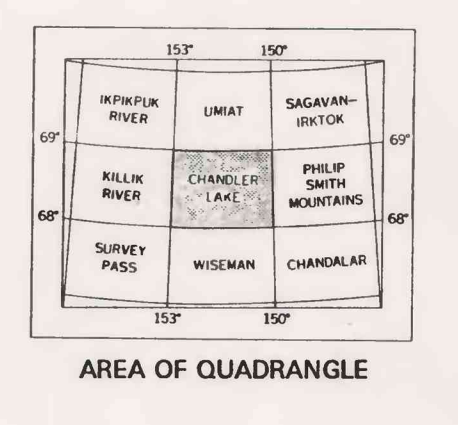


Figure 1. Index map showing the localities of mineral deposits, occurrences, and mineralized areas in the Colville mining district, Brooks Range, Alaska (modified from Meyer, 1994).

Base from U.S. Geological Survey, 1953  
Universal Transverse Mercator projection



SCALE 1:250,000  
CONTOUR INTERVAL 200 FEET  
MAGNETIC DECLINATION AT SOUTH EDGE OF SHEET VARIES FROM 26° TO 27°30' EAST

Manuscript approved for publication June 29, 1995  
Geology from J.S. Kelley, 1990

**MAPS SHOWING MINERAL RESOURCE ASSESSMENT OF THE CHANDLER LAKE QUADRANGLE, ALASKA**

By  
S.E. Church, J.S. Kelley, and Diedra Bohn

Any use of trade names in this publication is for descriptive purposes only and does not imply endorsement by the U.S. Geological Survey.  
INTERIOR-GEOLOGICAL SURVEY, RESTON, VIRGINIA-1996  
For sale by U.S. Geological Survey, Earth Science Information Center,  
Suite 101, 4210 University Drive, Anchorage, AK 99506, and  
U.S. Geological Survey, Information Services,  
Box 24286, Federal Center, Denver, CO 80225