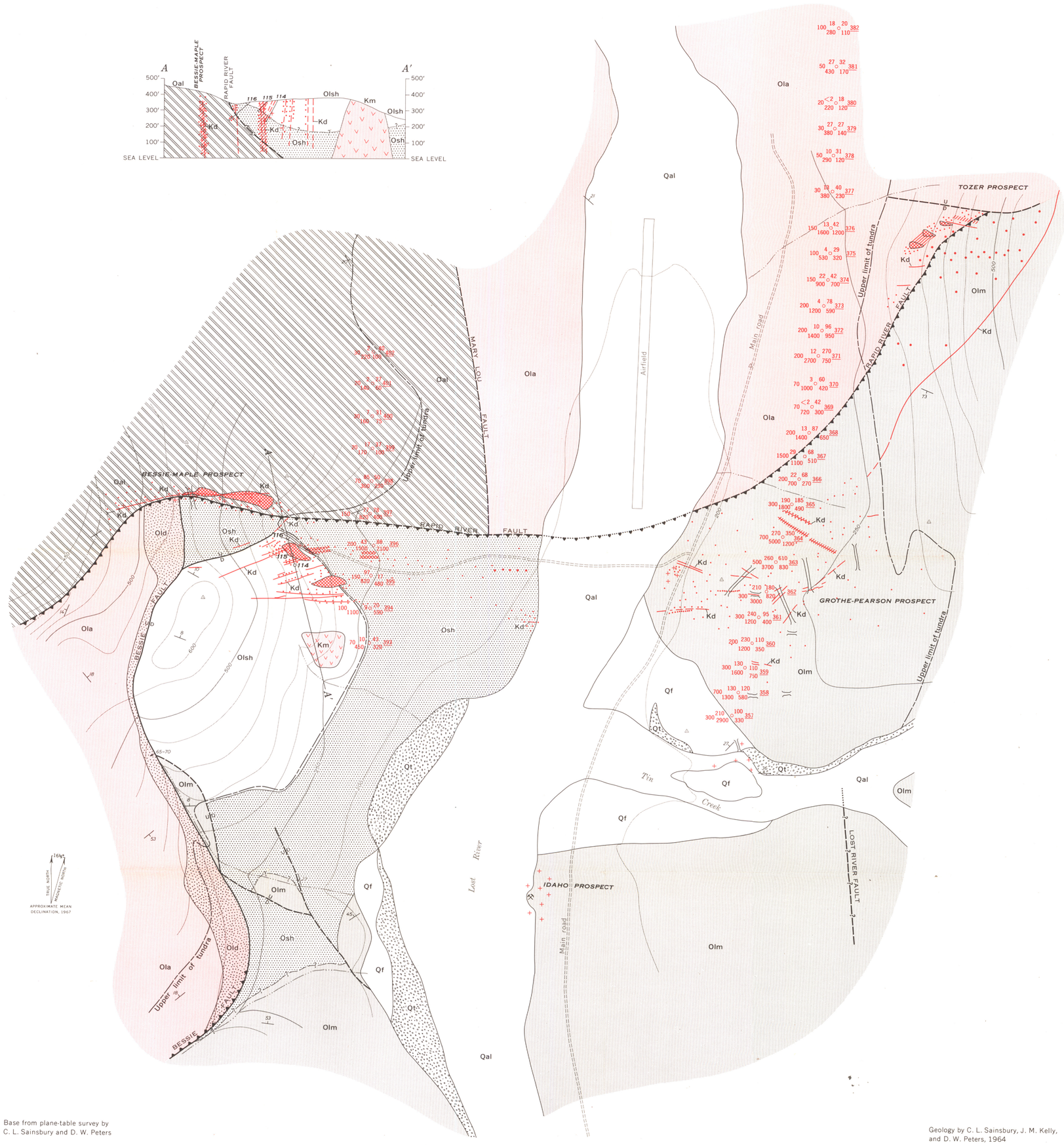

Base from plane-table survey by
C. L. Sainsbury and D. W. Peters

Geology by C. L. Sainsbury, J. M. Kelly,
and D. W. Peters, 1964

EXPLANATION

QUATERNARY

Recent

Qal — Alluvium

Pleistocene

Qt — Terrace gravels

Qf — Alluvial fans

CRETACEOUS

Upper Cretaceous

Kd — Dikes
Includes rhyolite, rhyolite porphyry, altered rhyolite, and fresh and altered dark dikes (lamprophyres)

Km — Mafic intrusive
Dark-colored augite-bearing intrusive containing xenoliths of limestone and dolomite

ORDOVICIAN

Lower Ordovician

Olsh — Limestone and shale
Medium-bedded medium- to dark-gray limestone and dolomitized limestone that weathers dark brown; minor dark shale and gray-black crystalline limestone

Osh — Shale
Black shale and minor black crystalline limestone; forms black soil

Olm — Limestone and argillaceous limestone
At top consists of medium- to thick-bedded light-gray limestone that weathers bluish-gray; grades downward into massive micritic medium- to light-gray limestone and interbedded argillaceous limestone

Old / Ola — Limestone and argillaceous limestone
Ola, *interbedded medium- to thick-bedded medium-gray limestone; locally contains chert and thin-bedded argillaceous limestone that weathers limonitic yellow*
Old, *dolomitized equivalent along fault*

Qal — Argillaceous limestone
Thin-bedded argillaceous limestone that weathers limonitic

Contact, approximately located or gradational
Dashed and queried where inferred

Tundra limit
Marks upper limit of tundra sufficiently thick to prevent precise geologic observations

Fault, showing dip
Dashed where approximately located; dotted where concealed; queried where probable. U, upthrown side; D, downthrown side. Teeth denote part of fault that has shallow dip

Thrust fault
Dashed where approximately located; dotted where concealed. Sawteeth on upper plate

Fluorite-beryllium rock and sulfides
At surface symbols denote float which is very heavy where cross hatched, moderately heavy where lined, and noticeable where dotted (dot spacing denotes relative amount); crosses denote sulfide minerals
In drill holes, symbols denote minerals in place

Hydrothermal silica
Includes gray chalcedonic silica west of Lost River, and rusty siliceous boulders of unknown origin east of Tozer prospect; generally lies on periphery of fluorite-beryllium lodes

Strike and dip of beds
Dip symbol in alluvium, fans, or terrace gravels signifies small outcrop of bedrock

Prospect trench — Prospect pit — Adit
Caved at portal

Diamond-drill hole
Shows location of collar and U.S. Bureau of Mines number on map

Drill hole
Shown on section

Soil sample
Showing metal content, in parts per million. Clockwise from upper left, elements reported are Be, Cu, Pb, Zn, Sn. Sample number is underscored 374

Triangulation station
Station placed in 1964 by the U.S. Geological Survey

Topographic contours

Streambed
Minor streams only

Road

INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.—1967—G67159

GEOLOGIC MAP OF THE BERYLLIUM AND TIN DEPOSITS IN LOST RIVER VALLEY, WESTERN SEWARD PENINSULA, ALASKA

0 400 800 1200 FEET

CONTOUR INTERVAL 50 FEET
DATUM IS APPROXIMATE MEAN SEA LEVEL