Geology of the Burns Knoll Quadrangle, Beaver and Iron Counties, Utah

by Lehi F. Hintze, Myron G. Best, and Clark L. Weaver

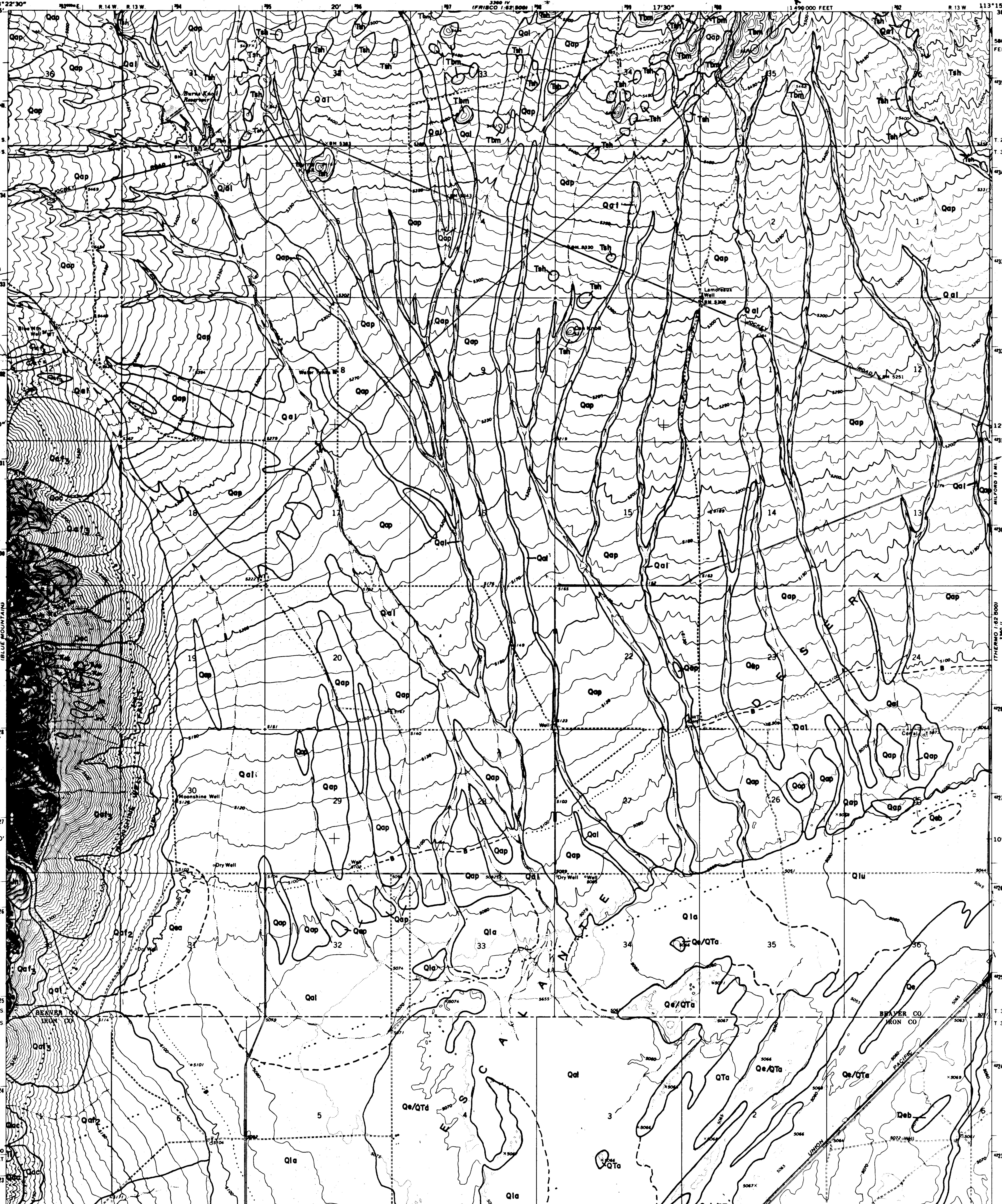
1988

Quaternary mapping by Hintze, igneous rocks identified by Best, older bedrock mapping by Weaver (1980*)
*Brigham Young University Geology Studies, volume 27, part 3.

UTAH GEOLOGICAL AND MINERAL SURVEY
OPEN-FILE REPORT 179

UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY

BURNS KNOLL QUADRANGLE
UTAH
7.5 MINUTE SERIES (TOPOGRAPHIC)



Map units

Symbol	Unit
Qal	Alluvium
Qaf1	Young fan deposits
Qaf2	Middle fan deposits
Qaf3	Old fan deposits
Qap	Pediment alluvium
Qla	Lacustrine and alluvial deposits
Qlu	Lacustrine deposits
Qeb	Eolian blowout
Qea	Eolian and alluvial deposits
Qe	Eolian deposits
QTa	Old alluvium
	UNCONFORMITY
Tbm	Blown mafics
Ti	Isom Formation
Tsh	Andesite of Shauntie Hills
	UNCONFORMITY
Jt	Temple Cap Fm
Jn	Navajo Ss (quartzite)
₸c	Chinle Fm (hornfels)
₸s	Shinarump Cg
₸m	Moenkopi Fm (hornfels)
	THRUST
€s	Swasey Limestone

--B··· Bonneville shoreline

Qe/QTa indicates thin cover of Qe over QTa

Mapped, edited, and published by the Geological Survey

Control by USGS and USC&GS

Topography by photogrammetric methods from aerial photographs taken 1970. Field checked 1971

Projection and 10,000-foot grid ticks: Utah coordinate system, south zone (Lambert conformal conic)
1000-meter Universal Transverse Mercator grid ticks, zone 12, shown in blue. 1927 North American datum

Fine red dashed lines indicate selected fence lines

(LUND) 3360 III SW

UTM GRID AND 1971 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET
1°26' 25 MILS — 15½° 276 MILS

SCALE 1:24 000
1 MILE — 1000 0 1000 2000 3000 4000 5000 6000 7000 FEET — 1 KILOMETER

CONTOUR INTERVAL 10 FEET
DOTTED LINES REPRESENT 5-FOOT CONTOURS
NATIONAL GEODETIC VERTICAL DATUM OF 1929

THIS MAP COMPLIES WITH NATIONAL MAP ACCURACY STANDARDS
FOR SALE BY U.S. GEOLOGICAL SURVEY, DENVER, COLORADO 80225, OR RESTON, VIRGINIA 22092
A FOLDER DESCRIBING TOPOGRAPHIC MAPS AND SYMBOLS IS AVAILABLE ON REQUEST

QUADRANGLE LOCATION

ROAD CLASSIFICATION
Primary highway, hard surface — Light-duty road, hard or improved surface
Secondary highway hard surface — Unimproved road
Interstate Route — U S Route — State Route

(THERMO 1:62 500) 3360 II

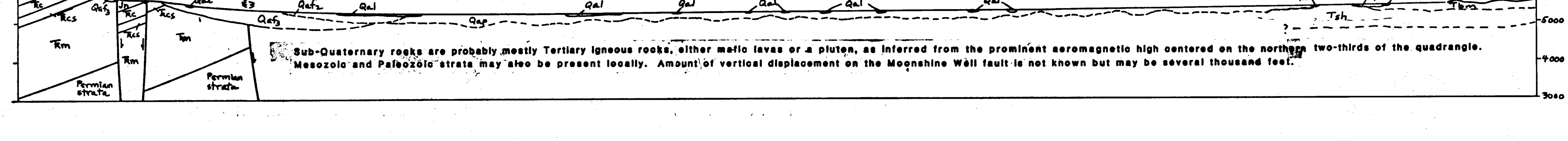
Hintze + Best 1989
Burns Knoll quadrangle
1:24000

BURNS KNOLL, UTAH
N3807.5—W11315/7.5

1971

AMS 3360 III NE—SERIES V897

INTERIOR—GEOLOGICAL SURVEY, RESTON, VIRGINIA—1974



Sub-Quaternary rocks are probably mostly Tertiary igneous rocks, either mafic lavas or a pluton, as inferred from the prominent aeromagnetic high centered on the northern two-thirds of the quadrangle. Mesozoic and Paleozoic strata may also be present locally. Amount of vertical displacement on the Moonshine Well fault is not known but may be several thousand feet.