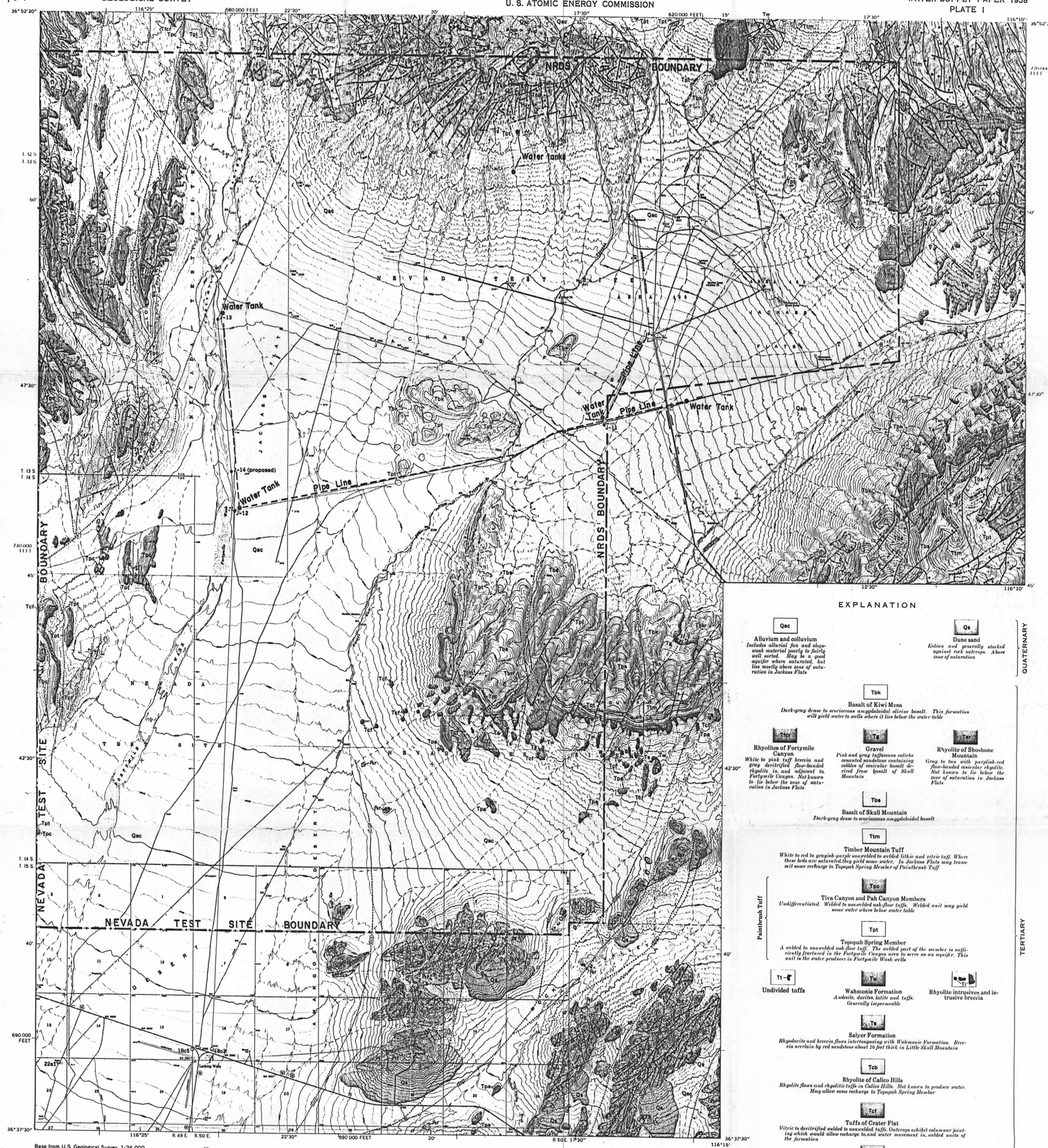


Base from U.S. Geological Survey, 1:24,000
Jackass Flats, Lathrop Wells, Skull Mountain, Striped Hills, and Topopah Springs SW, 1961.
10,000-foot grid based on Nevada coordinate system, central zone

APPROXIMATE MEAN DECLINATION, 1972

SCALE 1:48 000

1 ½ 0 1 2 3 MILES

1 .5 0 1 2 3 KILOMETERS

CONTOUR INTERVAL 20 FEET
DOTTED LINES REPRESENT 10-FOOT CONTOURS
DATUM IS MEAN SEA LEVEL

INDEX TO SOURCES OF GEOLOGIC DATA

1. Lipman and McKay (1965)
2. McKay and Williams (1964)
3. Ekren and Sargent (1965)
4. McKay and Burchfiel (1966a)
5. McKay and Burchfiel (1966b)

Geology compiled by R. A. Young

EXPLANATION

QUATERNARY

Qac — **Alluvium and colluvium**
Includes alluvial fan and slope-wash material poorly to fairly well sorted. May be a good aquifer where saturated, but lies mostly above zone of saturation in Jackass Flats

Qs — **Dune sand**
Eolian and generally stacked against rock outcrops. Above zone of saturation

TERTIARY

Tbk — **Basalt of Kiwi Mesa**
Dark-gray dense to scoriaceous amygdaloidal olivine basalt. This formation will yield water to wells where it lies below the water table

Tpc — **Rhyolites of Portymile Canyon**
White to pink tuff breccia and gray devitrified flow-banded rhyolite in, and adjacent to, Portymile Canyon. Not known to lie below the zone of saturation in Jackass Flats

Tt — **Gravel**
Pink and gray tuffaceous caliche cemented sandstone containing cobbles of vesicular basalt derived from basalt of Skull Mountain

Tpr — **Rhyolite of Shoshone Mountain**
Gray to tan with purplish-red flow-banded vesicular rhyolite. Not known to lie below the zone of saturation in Jackass Flats

Tbs — **Basalt of Skull Mountain**
Dark-gray dense to scoriaceous amygdaloidal basalt

Ttm — **Timber Mountain Tuff**
White to red to grayish-purple nonwelded to welded lithic and vitric tuff. Where these beds are saturated, they yield some water. In Jackass Flats may transmit some recharge to Topopah Spring Member of Paintbrush Tuff

Paintbrush Tuff:

Tpa — **Tiva Canyon and Pah Canyon Members**
Undifferentiated. Welded to nonwelded ash-flow tuffs. Welded unit may yield some water where below water table

Tpt — **Topopah Spring Member**
A welded to nonwelded ash-flow tuff. The welded part of the member is sufficiently fractured in the Portymile Canyon area to serve as an aquifer. This unit is the water producer in Portymile Wash wells

Tt- — **Undivided tuffs**

Tw — **Wahmonie Formation**
Andesite, dacites, latite and tuffs. Generally impermeable

Tr — **Rhyolite intrusives and intrusive breccia**

Ts — **Salyer Formation**
Rhyodacite and breccia flows intertonguing with Wahmonie Formation. Breccia overlain by red sandstone about 10 feet thick in Little Skull Mountain

Tcb — **Rhyolite of Calico Hills**
Rhyolite flows and rhyolitic tuffs in Calico Hills. Not known to produce water. May allow some recharge to Topopah Spring Member

Tcf — **Tuffs of Crater Flat**
Vitric to devitrified welded to nonwelded tuffs. Outcrops exhibit columnar jointing which would allow recharge to, and water movement in, welded units of the formation

Tpa — **Rocks of Pavits Spring**
Tuffaceous sandstone and siltstone, with minor limestone and conglomerate. In area south of Little Skull Mountain jointing in sandstone outcrops would appear to promote recharge, but depth of open jointing unknown

PALEOZOIC

Pzr — **Paleozoic Rocks**
Predominantly carbonate rocks, quartzite, and argillite. May include some precambrian rocks

Contact
Dashed where approximately located

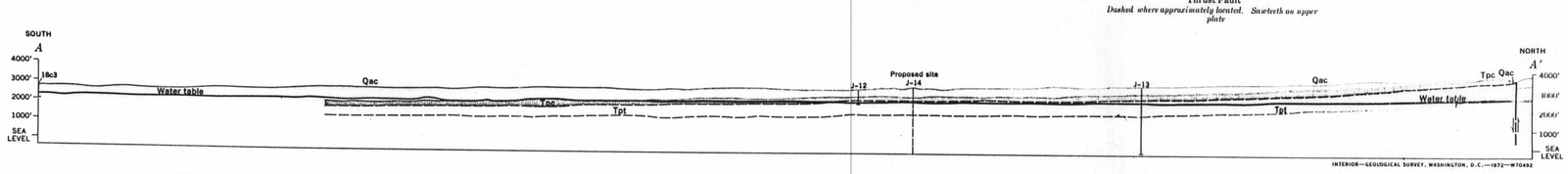
Fault, showing dip
Dash where approximately located or probable; dotted where concealed; queried where doubtful. Ball and bar on downthrown side; arrows show relative horizontal movement

Thrust Fault
Dashed where approximately located. Sawteeth on upper plate

Strike and dip of beds

Nuclear Rocket Development Station well and number

Well and number outside Nuclear Rocket Development Station



INTERIOR—GEOLOGICAL SURVEY, WASHINGTON, D.C.—1972—W70492

GENERALIZED GEOLOGIC MAP AND SECTION OF NUCLEAR ROCKET DEVELOPMENT STATION AT THE U.S. ATOMIC ENERGY COMMISSION'S NEVADA TEST SITE