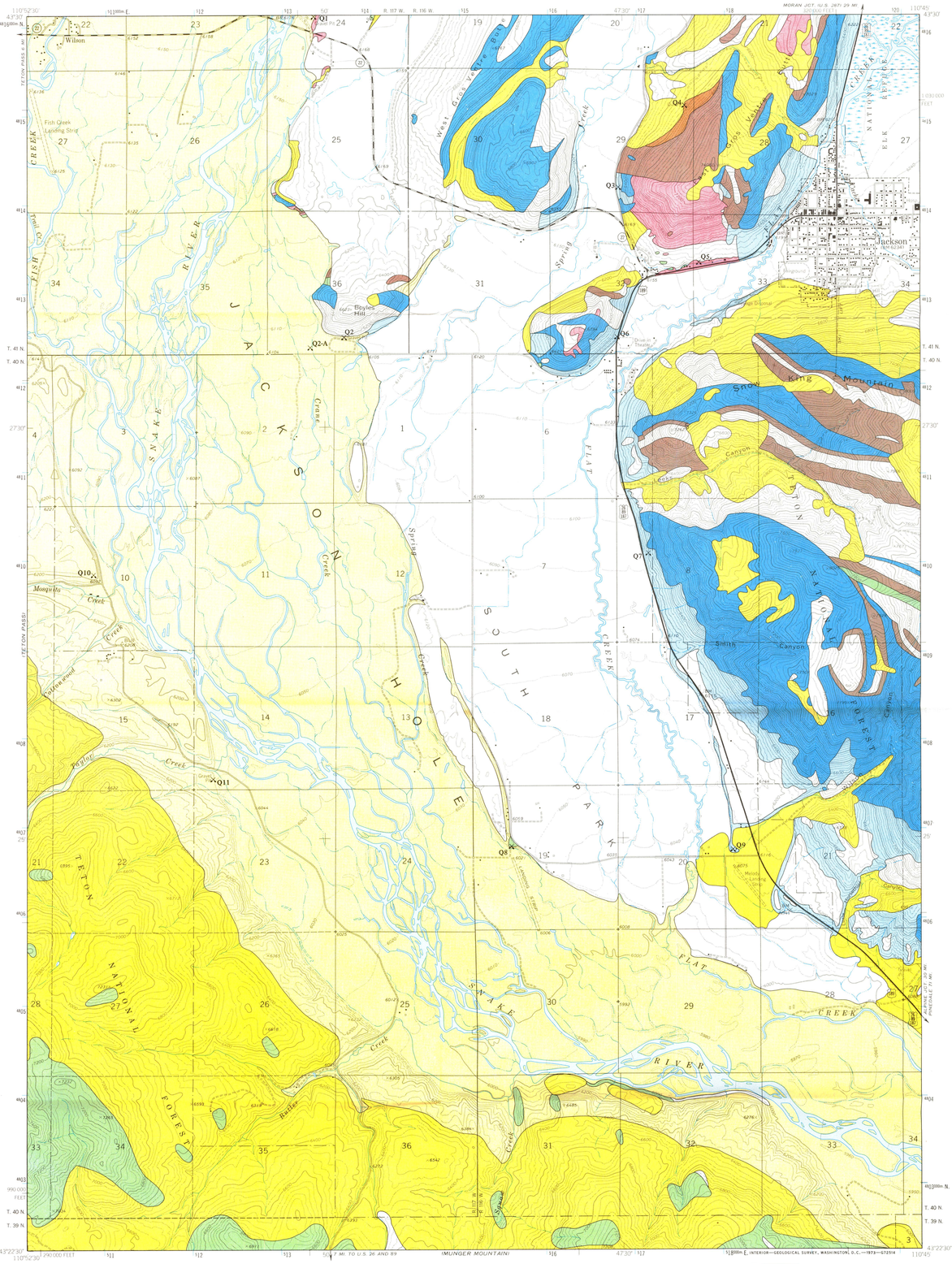
DEPARTMENT OF THE INTERIOR
UNITED STATES GEOLOGICAL SURVEY

FOLIO OF THE
JACKSON QUADRANGLE, WYOMING
MAP I-769-B



Base from U.S. Geological Survey, 1963
10,000-foot grid based on Wyoming coordinate system, west zone
1000-meter Universal Transverse Mercator grid ticks, zone 12, shown in blue

APPROXIMATE MEAN DECLINATION, 1973

SCALE 1:24 000

1 0 1 MILE
1 .5 0 1 KILOMETER

CONTOUR INTERVAL 40 FEET
DATUM IS MEAN SEA LEVEL

WYOMING
QUADRANGLE LOCATION

MAP SHOWING ROCK MATERIALS USEFUL FOR CONSTRUCTION IN THE JACKSON QUADRANGLE, TETON COUNTY, WYOMING

By
J. D. Love

1973

EXPLANATION

This map shows the surface distribution of the most abundant and most useful kinds of unbroken rocks as well as broken rock fragments that are sand size or larger. Except for shale, the unbroken rocks are hard and form mountains, ridges, buttes, and canyon walls because they are not as easily washed away by streams, scoured down by ice, or blasted and etched by wind. Many of them extend downward far below the ground surface. In contrast, most of the broken rocks, except for sand and the rounded type of stream gravel, are present as thin deposits on steep slopes downhill from exposures of the hard unbroken rocks that provided this debris. Sand and gravel generally are exposed on, and underlie, broad flat areas such as those extending across the middle of the quadrangle

Only the most abundant, most important, or thickest rock layers or deposits are shown. Many small outcrops of thin limestones, dolomites, sandstones, and shales are omitted. Specific types of rocks and rock materials at all sites are shown on the geologic map of the Jackson quadrangle (Map I-769-A). A geologist or soils engineer can be of help in explaining the properties of these materials.

SAND AND GRAVEL – Thick widespread deposits along all major stream valleys; locally the deposits are more than 100 feet thick; however, east and west of the Snake River the gravel and sand may be covered by 1-10 feet of silty and clayey soil. Stones in the gravel range from 1 inch to 6 inches in size and consist mostly of hard quartzite. Gravel is more abundant than sand. The chief use is in road construction and concrete mixes. Most material comes from gravel pits and quarries Q2, Q2-A, Q5, Q10, and Q11. Both sand and gravel contain small quantities of tiny gold flakes

NONSORTED LOOSE ROCK – Mostly unconsolidated material consisting of abundant hard stones in a sandy, silty, or clayey matrix that is muddy and easily compacted when wet. Suitable for fill for roads and other embankments, and for landfills

BROKEN VOLCANIC ROCK – Chiefly red, black, and gray lava, so broken up that it can be quarried without much blasting; mostly thin deposits on steep hills. Gray rock at quarry Q5 is used for road metal; rock at quarry Q1 is used for riprap levees on Snake River. Most of red and black rock is on East Gros Ventre Butte and has not been extensively quarried. Small amounts have been used for decorative and building stone

BROKEN LIMESTONE AND DOLOMITE – Composed of dull-gray hard angular rock fragments with little matrix; mostly thin deposits on steep slopes; can be quarried without blasting. Deposits are linear in shape because they are along lines of intense fracturing of bedrock. They have been extensively quarried (Q3, Q6, Q7) for road metal and landfill

BROKEN SANDSTONE – Salmon-pink sandstone broken into angular fragments; mostly thin deposits on steep slopes. It is quarried locally for road metal (Q4) but may have uses as decorative stone and in concrete mixes where only low-lime silica-rich nonvolcanic material or pink color is desirable

BEDDED LIMESTONE – Thick beds of hard blue-gray limestone totaling more than 1,000 feet thick on buttes and mountains east of the Snake River. Previous use was mostly for building foundations but some was baked to make plaster. Several unfractured layers polish easily and could make a unique decorative stone

BEDDED SANDSTONE – White to salmon-pink beds of brittle sandstone with total thicknesses of 50 to several hundred feet. Less-fractured layers that split easily along the bedding are used for building and paving stone, and the salmon-pink beds make an attractive decorative stone. Lichen-covered slabs are used to face walls and buildings in and near Jackson

SHALE – Thick beds of green to black soft clayey shale, locally interbedded with lesser amounts of sandstone and siltstone. May extend far below the ground surface. Plastic shale is used to seal ditches and ponds. Some beds are a potential source of clay for manufacture of brick, tile, and pottery

Q6 QUARRY SITE OR GRAVEL PIT

For sale by U.S. Geological Survey, price 75 cents