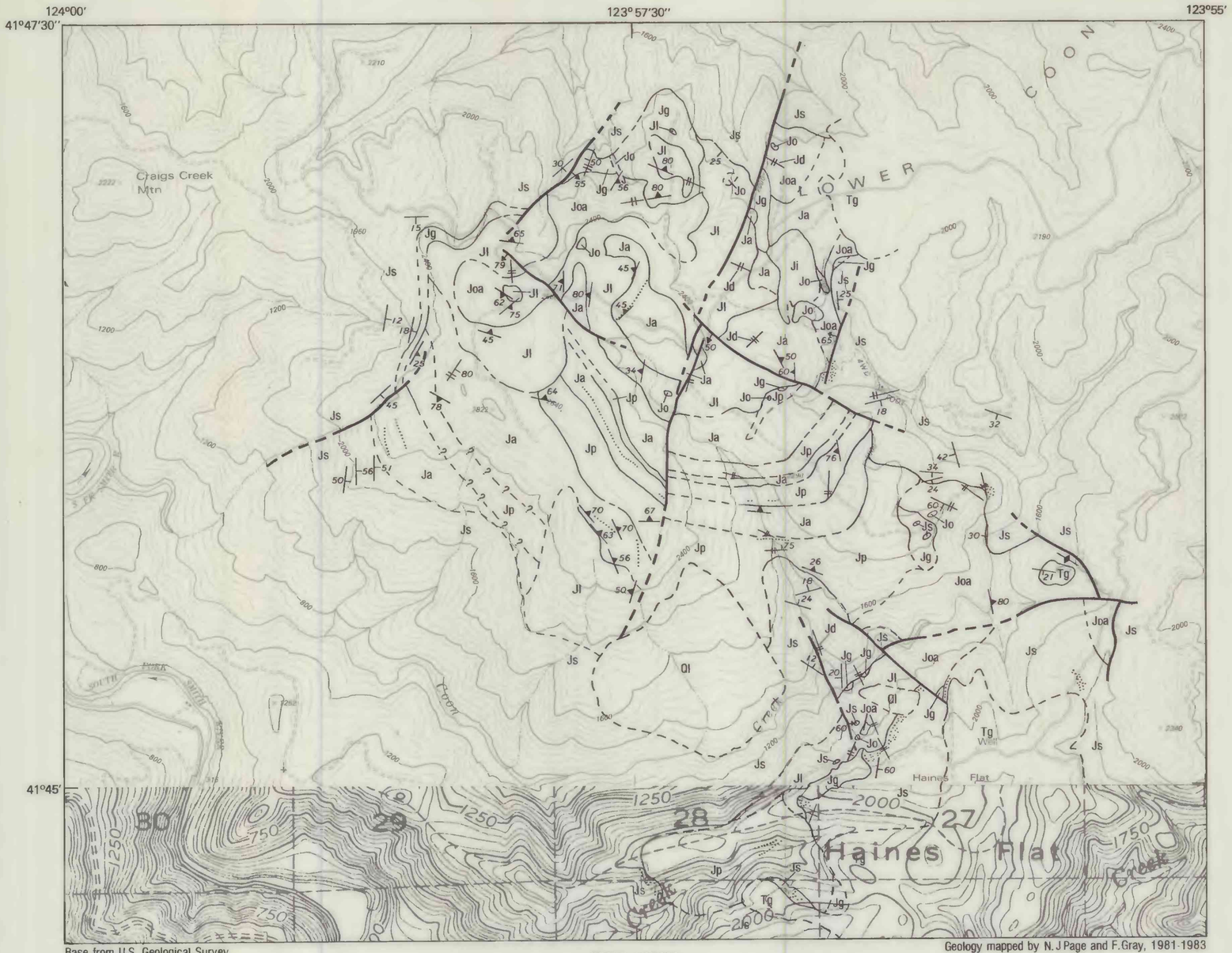
DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

OPEN-FILE REPORT
85-148



Base from U.S. Geological Survey Gasquet, 1981; 1:62,500, Ship Mountain, 1952

Geology mapped by N. J Page and F. Gray, 1981-1983

SCALE 1:24 000

1 ½ 0 1 MILE

1000 0 1000 2000 3000 4000 5000 6000 7000 FEET

1 .5 0 1 KILOMETER

NATIONAL GEODETIC VERTICAL DATUM OF 1929

CONTOUR INTERVAL 80 FEET

18°
TRUE NORTH
MAGNETIC NORTH

APPROXIMATE MEAN DECLINATION, 1985

AREA OF MAP

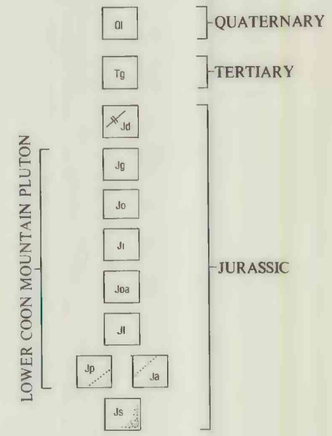
GEOLOGIC MAP OF THE LOWER COON MOUNTAIN PLUTON, DEL NORTE COUNTY, CALIFORNIA

By

Floyd Gray and Norman J Page

1985

CORRELATION OF MAP UNITS



DESCRIPTION OF MAP UNITS

Ql — LANDSLIDE DEPOSIT (QUATERNARY)--Unconsolidated poorly sorted rock and soil; occurs in the southern part of area

Tg — GRAVEL AND SAND DEPOSIT (TERTIARY)--Crudely stratified unconsolidated gravel and sand

Jd — DIKES OF TONALITIC AND PORPHYRITIC DACITIC COMPOSITION (JURASSIC)--Light gray to white colored plagioclase, hornblende and quartz-bearing siliceous dikes; appears as dikes crosscutting most of other units

Jg — GABBRO (JURASSIC)--Undifferentiated variably textured, hornblende-bearing gabbroic intrusives; complex cross-cutting relationships present at margin of contact; unit contains minor hornfels

Jo — OLIVINE CUMULATE AND DUNITE (JURASSIC)--Black to dark-brown to buff-brown-colored, medium- to coarse-grained, partially serpentinized olivine cumulate; pyroxene occurs as coarse poikilitic crystals and as intercumulus anhedral patches between olivine crystals; unit occurs as small intrusive bodies adjacent to Joa

Ji — INTRUSIVE FELDSPATHIC PYROXENITE (JURASSIC)--Light-gray to gray, medium-grained equigranular rock; consists of bytownite plagioclase, euhedral clinopyroxene, and lesser amounts of olivine, accessory magnetite, and rare late-stage hornblende

Joa — OLIVINE-AUGITE CUMULATE (JURASSIC)--Light- to dark-brown to black, fine- to coarse-grained irregularly textured olivine-rich rocks; consists of cumulus olivine with lesser amounts of clinopyroxene present either as euhedral coarse crystals or in large clusters; olivine typically shows interconnecting texture; locally forms intrusion breccia at contact with Jl

Jl — LAYERED OLIVINE-AUGITE CUMULATE (JURASSIC)--Dark-green to greenish-gray, coarse-grained rocks; consists of euhedral to subhedral pyroxene up to 1.5 cm; anhedral olivine often displays interconnecting network texture; <2 percent opaques present, and trace amounts of brown interstitial hornblende; rock displays strong foliation and mineral layering; contains large pendant of banded sequence (Ja, Jp)

Jp — PLAGIOCLASE-RICH AUGITE-OLIVINE CUMULATE (JURASSIC)--Dark greenish-gray, brown to buff to light tan colored, medium-grained equigranular plagioclase-rich pyroxenite cumulates; local troctolitic lenses are present; plagioclase may range from interstitial anhedral grains forming approximately 7 percent of rock, to euhedral grains constituting approximately 90 percent of rock; composed of euhedral to subhedral augite, plagioclase, interstitial olivine and greater than accessory magnetite; thin irregular magnetite-rich layers may be present; olivine is primary mafic mineral in troctolitic varieties

Ja — AUGITE-OLIVINE CUMULATE (JURASSIC)--Medium- to coarse-grained, greenish-brown to greenish-black pyroxene-rich ultramafic rock; characterized by cumulate textures; consists of euhedral to subhedral augite crystals 2 to 7 mm in diameter with lesser amounts of anhedral olivine 4 to 5 mm in diameter and interstitial magnetite. Locally, magnetite may occur as cumulus layers up to 2.5 cm thick (shown by dotted lines); these magnetite-rich horizons consist of magnetite (20-90%) with euhedral clinopyroxene crystals and rare olivine; unit is interlayered with plagioclase-rich augite-olivine cumulate (Jp)

Js — SHALE, MINOR VOLCANIC ROCKS, AND HORNFELSED EQUIVALENTS (JURASSIC)--Interlayered shale and sandstone; locally occurs as light-gray to greenish-gray phyllitic schist displaying distinct crenulation cleavage; minor aphanitic metavolcanic flows and associated tuffaceous rocks crop out adjacent to the Lower Coon Mountain pluton

——— – – ?—? CONTACT--Approximately located; dashed where inferred; questioned where projected

——— – – FAULT--Showing dip; solid where approximately located; dashed where inferred

STRIKE AND DIP OF BEDS

70 Inclined

Vertical

STRIKE AND DIP OF LAYERING IN IGNEOUS ROCKS

60 Inclined

Vertical

65 DIKE SHOWING DIP

AREA OF VOLCANIC ROCK

This map is preliminary and has not been reviewed for conformity with U.S. Geological Survey editorial standards.