U.S DEPARTMENT OF THE INTERIOR U.S. GEOLOGICAL SURVEY MISCELLANEOUS INVESTIGATIONS SERIES I-855-G Version 1.1

GEOLOGIC MAP OF THE BOULDER-FORT COLLINS-GREELEY AREA, COLORADO By Roger B. Colton Version 1.1

Universal Transverse Mercator projection, zone 13, 1927 North American Datum

Geology compiled in 1976; GIS database by Theodore R. Brandt, David W. Moore, and Kyle E. Murray; Digital Cartography by Theodore R. Brandt; Edited by Alex J. Donatich

DESCRIPTION OF MAP UNITS

ARTIFICIAL FILL

POST-PINEY CREEK ALLUVIUM (UPPER HOLOCENE)

TALUS (UPPER HOLOCENE TO PLEISTOCENE)

COLLUVIUM (UPPER HOLOCENE TO PLEISTOCENE)

EOLIUM (WINDBLOWN CLAY, SILT (LOESS), SAND, AND GRANULES) (UPPER HOLOCENE TO BULL LAKE GLACIATION)

LANDSLIDE DEPOSITS (HOLOCENE TO PLEISTOCENE)

PINEY CREEK ALLUVIUM (UPPER HOLOCENE)

BROADWAY ALLUVIUM (PINEDALE GLACIATION, PLEISTOCENE)

LOUVIERS ALLUVIUM (BULL LAKE GLACIATION, PLEISTOCENE)

SLOCUM ALLUVIUM (SANGAMON INTERGLACIATION OR ILLINOIAN GLACIATION, PLEISTOCENE)

VERDOS ALLUVIUM (YARMOUTH INTERGLACIATION OR KANSAN GLACIATION, PLEISTOCENE)

ROCKY FLATS ALLUVIUM (AFTONIAN INTERGLACIATION OR NEBRASKAN GLACIATION, PLEISTOCENE)

PRE-ROCKY FLATS ALLUVIUM (NEBRASKAN(?) GLACIATION, PLEISTOCENE)

BOULDER DEPOSITS (PLIOCENE?)

QUARTZ MONZONITE (EOCENE)

RHYODACITE AND BASALT (PALEOCENE)

DENVER (PALEOCENE AND UPPER CRETACEOUS) AND ARAPAHOE (UPPER CRETACEOUS) FORMATIONS

LARAMIE FORMATION (UPPER CRETACEOUS)

FOX HILLS SANDSTONE (UPPER CRETACEOUS)

PIERRE SHALE, UNDIFFERENTIATED (UPPER CRETACEOUS)

Upper transition member

Upper shale member

Richard Sandstone Member, unnamed shale member, Larimer Sandstone Member, unnamed shale member, and Rocky Ridge Sandstone Member.

Middle shale member

Hygiene Sandstone Member

Lower shale member

NIOBRARA FORMATION (UPPER CRETACEOUS)

CARLILE SHALE, GREENHORN LIMESTONE AND GRANEROS SHALE

DAKOTA GROUP (LOWER CRETACEOUS)

MORRISON, CANYON SPRINGS MEMBER OF SUNDANCE AND JELM FORMATIONS

LYKINS FORMATION (TRIASSIC AND PERMIAN)

LYONS SANDSTONE (PERMIAN)

SATANKA AND INGLESIDE FORMATIONS (PERMIAN)

INGLESIDE FORMATION

FOUNTAIN FORMATION (PERMIAN AND PENNSYLVANIAN)

SILVER PLUME QUARTZ MONZONITE (PRECAMBRIAN Y)

PEGMATITE (PRECAMBRIAN Y OR X)

BOULDER CREEK GRANODIORITE (PRECAMBRIAN X)

TONALITE (PRECAMBRIAN X)

METASEDIMENTARY ROCKS (PRECAMBRIAN X)

Quartzofeldspathic schist and gneiss interbedded with mica schist and gneiss

Knotted mica schist

Porphyroblastic biotite schist

AMPHIBOLITE (PRECAMBRIAN X)

CONTACT

FAULT OR LINEAR FEATURE INFERRED TO BE A FAULT-Dotted where concealed U, upthrown side; D, downthrown side; crosshatched area is brecciated rock