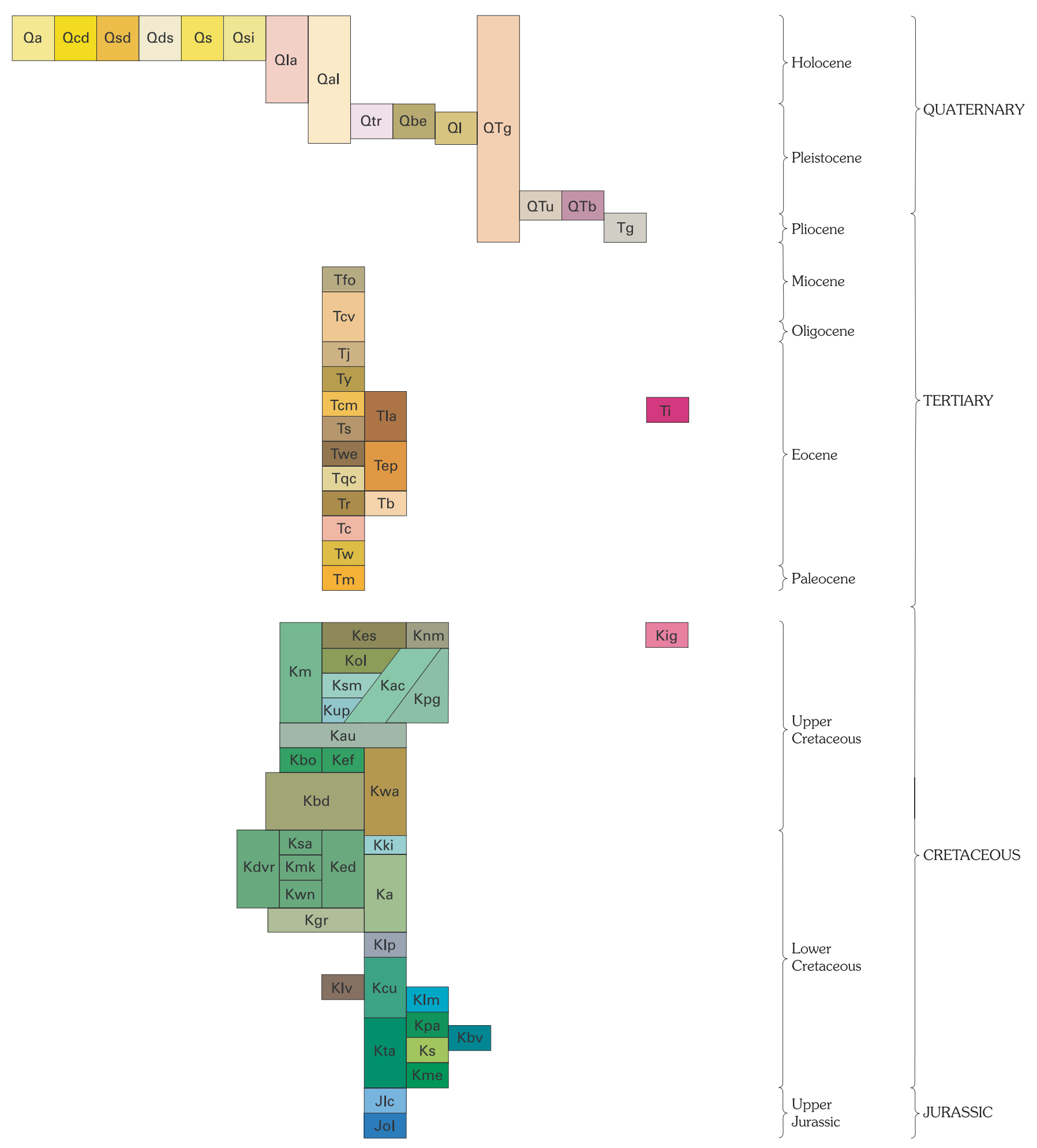
U.S. DEPARTMENT OF THE INTERIOR
U.S. GEOLOGICAL SURVEY

OPEN-FILE REPORT 2009-1015
SHEET 2 OF 2
VERSION 1.0
Pamphlet accompanies map

CORRELATION OF MAP UNITS



LIST OF MAP UNITS

w	Water
Qa	Modern alluvium (Holocene)
Qcd	Clay to sand dunes (Holocene)
Qsd	Active dunes (Holocene)
Qds	Stabilized sand dunes (Holocene)
Qs	Sand sheet (Holocene)
Qsi	Silt sheet (Holocene)
Qla	Lacustrine deposits (Holocene)
Qal	Alluvium, undivided (Holocene and Pleistocene)
Qtr	Travertine deposits (Pleistocene)
Qbe	Beaumont Formation (Pleistocene)
Ql	Lissie Formation (Pleistocene)
QTg	Quaternary and Tertiary gravel, undivided (Holocene to Pliocene)
QTu	Uvalde Gravel (Pleistocene or Pliocene)
QTb	Pleistocene and Pliocene basalt
Tg	Goliad Formation (Pliocene)
Tfo	Fleming Formation and Oakville Sandstone, undivided (Miocene)
Tcv	Catahoula (Miocene and Oligocene) and Frio and Vicksburg (Oligocene) Formations, undivided
Tj	Jackson Group, undivided (Eocene)
Ti	Tertiary igneous rocks (Eocene)

Claiborne Group (Eocene)

Ty	Yegua Formation (Eocene)
Tcm	Cook Mountain Formation (Eocene)
Ts	Sparta Sand (Eocene)
Tla	Laredo Formation (Eocene)
Twe	Weches Formation (Eocene)
Tqc	Queen City Sand (Eocene)
Tep	El Pico Clay (Eocene)
Tr	Reklaw Formation (Eocene)
Tb	Bigford Formation (Eocene)
Tc	Carrizo Sand (Eocene)

Tw	Wilcox Group, undivided (Eocene)
Tm	Midway Group, undivided (Paleocene)

Kig	Late Cretaceous igneous rocks
Km	Mendez Shale (Upper Cretaceous)
Kes	Escondito Formation (Upper Cretaceous)
Kol	Olmos Formation (Upper Cretaceous)
Ksm	San Miguel Formation (Upper Cretaceous)
Kup	Upson Clay (Upper Cretaceous)
Knm	Navarro Group and Marlbrook Marl, undivided (Upper Cretaceous)
Kac	Anacacho Limestone (Upper Cretaceous)
Kpg	Pecan Gap Chalk (Upper Cretaceous)
Kau	Austin Chalk (Upper Cretaceous)
Kbo	Boquillas Formation (Upper Cretaceous)
Kef	Eagle Ford Group (Upper Cretaceous)
Kbd	Buda Limestone and Del Rio Clay, undivided (Upper Cretaceous)
Kwa	Washita Group, undivided (Upper and Lower Cretaceous)
Kdvr	Devils River Limestone (Lower Cretaceous)
Ksa	Salmon Peak Limestone (Lower Cretaceous)
Kmk	McKnight Formation (Lower Cretaceous)
Kwn	West Nueces Formation (Lower Cretaceous)
Ked	Edwards Limestone, undivided (Lower Cretaceous)
Kki	Kiamichi Formation (Lower Cretaceous)
Ka	Aurora Formation (Lower Cretaceous)
Kgr	Glen Rose Formation (Lower Cretaceous)
Klp	La Pena Formation (Lower Cretaceous)
Kcu	Cupido Formation (Lower Cretaceous)
Klv	La Virgen Formation (Lower Cretaceous)
Klm	La Mula Formation (Lower Cretaceous)
Kpa	Padilla Limestone (Lower Cretaceous)
Kta	Taraises Formation (Lower Cretaceous)
Kbv	Barril Viejo Formation (Lower Cretaceous)
Ks	San Marcos Formation (Lower Cretaceous)
Kme	Menchaca Formation (Lower Cretaceous)
Jlc	La Casita Formation (Upper Jurassic)
Jol	Olvida Formation (Upper Jurassic)

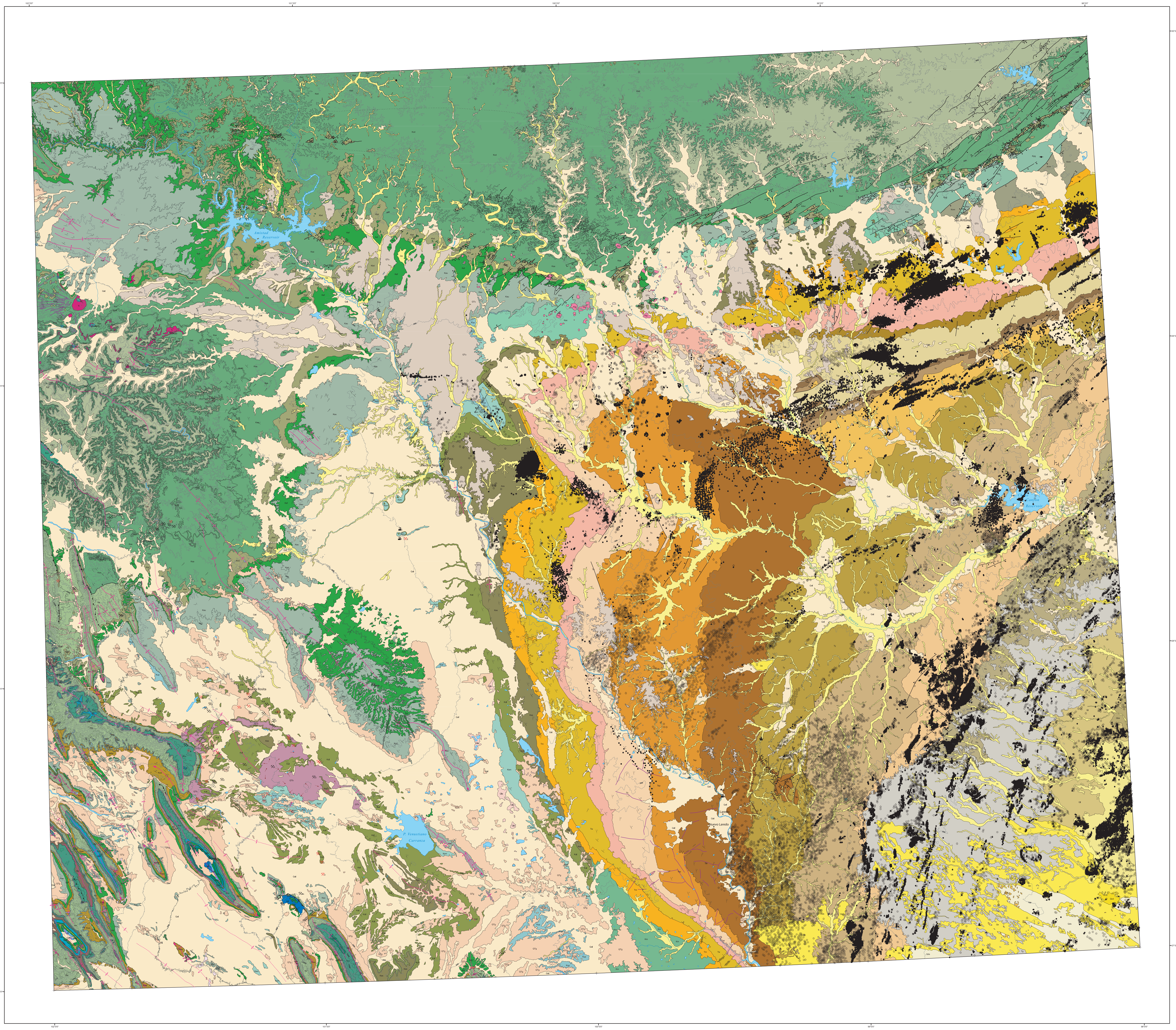
EXPLANATION OF MAP SYMBOLS

Contact—Certain
Facies boundary
Fracture
Map boundary
Normal fault—Certain
Normal fault—Concealed
Reverse or thrust fault—Approximately located
Reverse or thrust fault—Certain
Shoreline
Strike-slip fault, left lateral—Certain
Strike-slip fault, left lateral—Concealed
Strike-slip fault, right lateral—Certain
Strike-slip fault, right lateral—Concealed
Anticline
Anticline—Concealed
Inverted anticline
Inverted anticline—Concealed
Overturned anticline
Overturned anticline—Concealed
Plunging anticline
Plunging syncline
Syncline
Syncline—Approximately located
Syncline—Concealed

10 Inclined bedding—Showing strike and dip
Lava flow direction
⚒ Active mine—b, barite; c, coal; f, flourite
⚒ Inactive mine—b, barite; c, coal; ch, chlorite; f, flourite; mg, magnesium; mn, manganese; p, phosphorite; pb-zn, lead-zinc; u, uranium
⚒ Prospect/occurrence—ch, chlorite; mn, manganese; pb-zn, lead-zinc; ze, zeolite
★ Inactive antimony smelter
Powerplant—c, coal-burning; g, gas-fired
● Oil well
☼ Gas well
Oil/gas well
Plugged oil well
Plugged gas well
Plugged oil/gas well
Shut-in (gas)
Shut-in (oil)

UNITED STATES of AMERICA
TEXAS
MAP AREA
MEXICO
Gulf of California
Gulf of Mexico
Pacific Ocean

Index map showing location of map area.



Universal Transverse Mercator projection, zone 13
Clark Spheroid of 1866
North Amercian Datum of 1927

0 25 50 MILES
0 25 50 KILOMETERS
Scale 1:350,000
CONTOUR INTERVAL 100 METERS

Geology compiled by W.R. Page and M.E. Berry in 2008.
GIS work by D. Paco VanSistine and S.R. Snyders.

MAP B. GEOLOGY, OIL AND GAS WELLS, MINES, PROSPECTS/OCCURRENCES, AND POWER PLANTS

PRELIMINARY GEOLOGIC MAP OF THE LAREDO, CRYSTAL CITY–EAGLE PASS, SAN ANTONIO, AND DEL RIO 1° x 2° QUADRANGLES, TEXAS, AND THE NUEVO LAREDO, CIUDAD ACUÑA, PIEDRAS NEGRAS, AND NUEVA ROSITA 1° x 2° QUADRANGLES, MEXICO

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