PLATE I

GEOLOGIC MAP OF THE BARNSDALL AREA OSAGE COUNTY, OKLAHOMA

WILLIAM EDGAR GARDNER M.S., 1956

SCALE 0 2mi

EXPLANATION

PENNSYLVANIAN SYSTEM

QUATERNARY

Qal ALLUVIUM (Sand, silt and clay on flood plains of present streams)

Virgil series — Douglas and Shawnee groups

Pve / Pvks / Pvw / Pvs / Pv / Pvcc / Pvk / Pvch — VIRGIL FORMATION (Lower Part) (Buff to light gray limestone, olive-green, blue-gray and maroon shale, locally cross-bedded sandstone, constitutes the following members: Tallant limestone[Pve]; Elgin sandstone[Pvks]; Wynona limestone[Pvw]; Ochelata sandstone[Pvs]; Upper sandstone bed [Pvs], Lower sandstone bed [Pvs]; Dewey limestone[Pv]; Nellie Bly sandstone[Pvcc]; Hogshooter limestone[Pvk]; Checkerville sandstone[Pvch])

Missouri series — Cotoctoh group

Pl / Plh / Pb — VILLARY FORMATION (Not to scale) (Red and green shale, maroon sandstone, and gray limestone; base of the Bigheart member[Plh] is mapped)

Pcc / Pw / Pb — BURBANK FORMATION (Gray-green to dark clay shale, buff to brown, cotton-grained sandstone, and gray limestone; base of Burbank sandstone not definitely established at the base [Pcc] the Birch Creek limestone member is mapped; Pb includes the Osage coal member in the west, near the top in the south the Wildhorse limestone [Pw])

Pcc / Pw — HARD FORMATION (Gray-green, bluish shales; thin to massive-bedded, locally cross-bedded sandstones, and limestones; base of Hard sandstone member [Pcc] mapped; top of Isle Formation[Pw], Pine Creek sandstone member [Pwc] mapped)

Skiatook group

Pch / Pd — OSAGE, CHANUTE AND SKINNY FORMATIONS (Gray-green to dark clay shale, thin to massive crystalline limestone, dark clay shale, marl limestone, top of Osage coal member [Pch] mapped; base of Skinny sandstone member [Pd], white sand member [Mantle Creek shale and Vanle limestone] mapped; Pch includes Chanute formation, Chanute formation, gray, bluish shale, thin to massive, buff to brown sandstone, and thin, dark, argillaceous limestone[Pch]; Lower Formation, purple to steel-gray, fossiliferous limestone and clay-shale; base of Lower Skinny member of Formation [Pd] mapped; upper part of Formation [Pd] includes lower part of Chanute interval [Pch])

Pnb — NELLIE BLY FORMATION (Gray-green shale and siltstones, local thin limestone lenses, 11-54 buff sandstones, base not exposed in map area)

FAULT

PAVED ROAD

IMPROVED ROAD

RAILROAD

PERMANENT STREAM

INTERMITTENT STREAM

POND

CHURCH

SCHOOL

AIRPORT

CEMETERY

ABANDONED QUARRY

TANK FARM



INDEX MAP OF OKLAHOMA SHOWING THE LOCATION OF THE BARNSDALL AREA

R8E R9E R10E R11E R12E

T 24 N

T 23 N

T 22 N

WYNONA

WOLCO

AVANT

HOMINY

Little Hominy Creek

Bird Creek

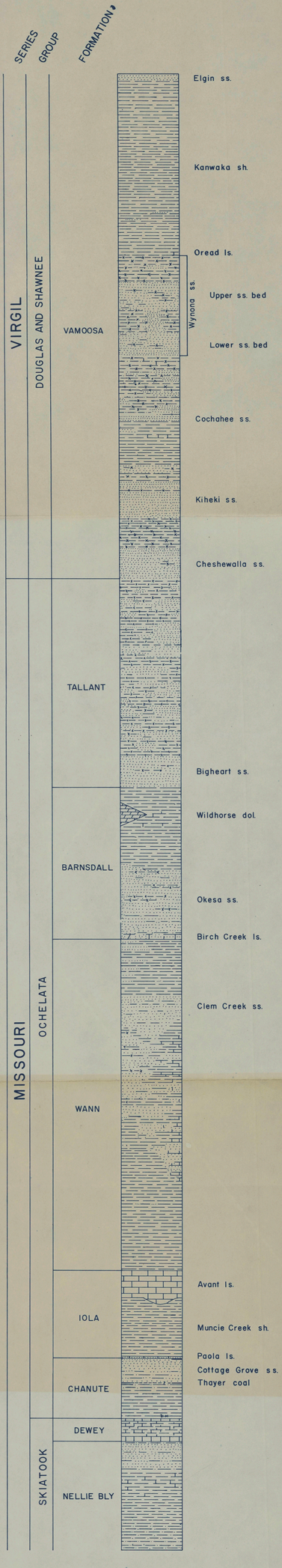
Sweetgum Creek

Coal Creek

Dog Creek

Boulder Creek

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LEGEND

dolomite
limestone
sandy limestone
coal
gray or black shale
sandy shale
maroon shale
sholy sandstone
sandstone

SCALE

0 feet
25
50

COMPOSITE SECTION

OF THE

UPPER PENNSYLVANIAN ROCKS

IN THE

BARNSDALL AREA

OSAGE COUNTY, OKLAHOMA

WILLIAM EDGAR GARDNER M.S., 1956

PLATE II