

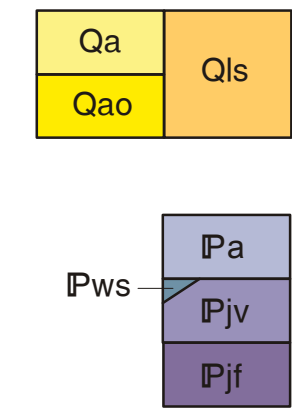


By

Neil H. Suneson and Charles A. Ferguson, 1989

Digitized by Jacob Hernandez, 2014

CORRELATION OF MAP UNITS

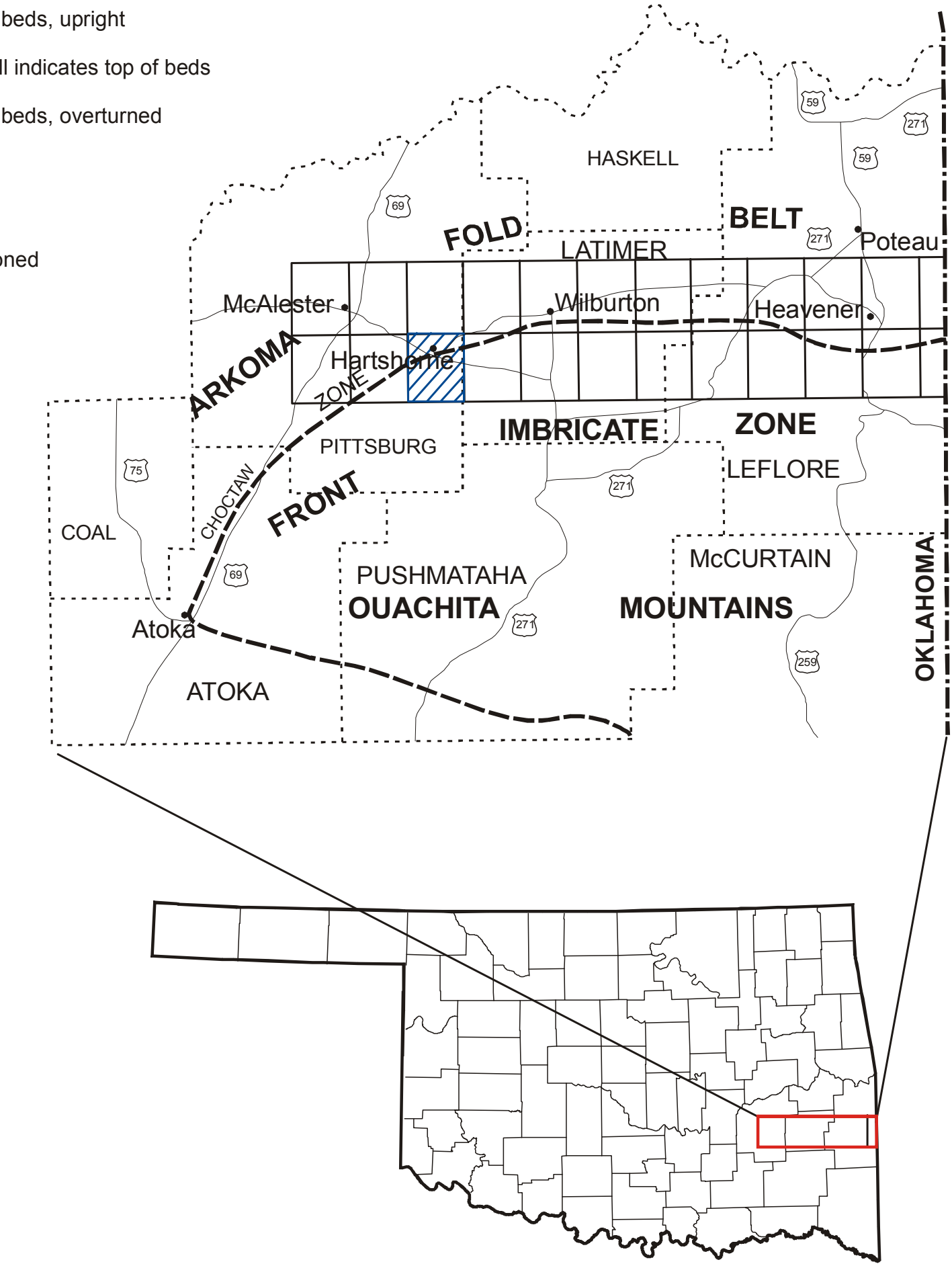


DESCRIPTION OF UNITS

- | | |
|--|-----------------|
| ALLUVIUM (QUATERNARY) – Unconsolidated silt, sand, and gravel in present stream channels | stream channels |
| OLD ALLUVIUM (QUATERNARY) Unconsolidated silt, sand, and gravel above present level of stream channels | |
| Clas | |
| LANDSLIDE DEBRIS (QUATERNARY) | |
| ATOKA FORMATION (PENNSYLVANIAN) –Predominantly poorly exposed olive-gray (Y9/2) to grayish olive (Y4/2), slightly silty, nonconspicuous, poorly laminated shale and mudstone. Contains thin beds of laminated shale and thicker beds of sandstone. Laminated siltstone shale near top of formation. Mudstone and siltstone resistant to weathering. Sandstone and grayish orange (Y7/2) where fresh, and grayish orange (10YR/4) where weathered. Mostly coarse-grained, medium to coarse-grained, and well-sorted. Relatively uniform in composition of about 95% quartz, 3% feldspar and 1% illite fragments, and conspicuous white mica parallel to laminations. Individual beds vary from several centimeters to several meters thick and average about 60 m. Interstratified with the Chickasaw. The Atoka is resistant to weathering and is easily identifiable on aerial photographs; some of these marker beds are mapped. Their beds are generally massive (corresponding to the Ta' Bomba turbidite sequence) to parallel laminated (Tb). thinner sandstone, ripple marks, ripple cross-bedding, and ripple marks are common. The Atoka is made of sandstone beds locally common. Dish-and-pail structures and ripple marks typical of some beds. Unconformities except for lowest sandstone beds immediately above Johns Valley Formation that are unconformable with the underlying Cretaceous. The Atoka is composed of a variety of plant fossiliferous plant fossils throughout the formation. Maximum thickness approximately 11,500 to (3,500) south of Chocoma place. | |
| SPRO SANDSTONE MEMBER (INFORMAL) OF WAPUKA FORMATION
PENNSYLVANIAN; thick-bedded, massive, grayish olive (Y9/2) to grayish olive (Y8/2) or olive (Y6/2) (10YR/8), mostly well-sorted, porous, medium-grained, stratified quartzite. Contains thin beds of nonconspicuous laminated shale and siltstone, to medium bedded sandstone. Sandstones mostly light brown (Y6/4) to grayish orange (10YR/4); varying from fine- to coarse-grained, with rare granule concentrations, rarely calcareous or fossil, and massive to parallel to ripple cross-bedded. Siltstone and sandstone are massive to parallel to ripple cross-bedded. The marker beds mapped. Shale locally contains slightly to well-bedded granules, cobbles, and boulders of chert and a wide variety of limestone lithologies (micritic to biohermal granitobasalts and padstones). Other lithologies include thin beds of calcareous shale, micritic limestone, and micritic limestone. The sandstone and coarse, micritic, phacelitic? nodules, and disseminated graptolite. Limestone dashes have been correlated with lower and middle Paleozoic units exposed to the north and west; chert clasts may be Woodford (Mississippian). Maximum thickness approximately 2,800 (1,850) south of Chocoma place. | |
| JOHNS VALLEY FORMATION (PENNSYLVANIAN) –Predominantly poorly exposed, medium-dark gray (N4) to pale-brown (Y5/2), mostly nonconspicuous, poorly laminated, slightly silty shale and mudstone. Contains thin beds of nonconspicuous laminated shale and siltstone, to medium bedded sandstone. Sandstones mostly light brown (Y6/4) to grayish orange (10YR/4); varying from fine- to coarse-grained, with rare granule concentrations, rarely calcareous or fossil, and massive to parallel to ripple cross-bedded. Siltstone and sandstone are massive to parallel to ripple cross-bedded. The marker beds mapped. Shale locally contains slightly to well-bedded granules, cobbles, and boulders of chert and a wide variety of limestone lithologies (micritic to biohermal granitobasalts and padstones). Other lithologies include thin beds of calcareous shale, micritic limestone, and micritic limestone. The sandstone and coarse, micritic, phacelitic? nodules, and disseminated graptolite. Limestone dashes have been correlated with lower and middle Paleozoic units exposed to the north and west; chert clasts may be Woodford (Mississippian). Maximum thickness approximately 2,800 (1,850) south of Chocoma place. | |
| JACKFORD GROUP (UNDIFFERENTIATED PENNSYLVANIAN) –Predominantly well-exposed, grayish-orange (10YR/4), yellowish, gray (Y7/2) to dusty yellow (N4), to fine to medium-grained, quartzite, nonconspicuous, massive, and massive to parallel to ripple cross-bedded. Contains thin beds of nonconspicuous laminated shale and siltstone, to medium bedded sandstone. Sandstones mostly light brown (Y6/4) to grayish orange (10YR/4); varying from fine- to coarse-grained, with rare granule concentrations, rarely calcareous or fossil, and massive to parallel to ripple cross-bedded. Siltstone and sandstone are massive to parallel to ripple cross-bedded. The marker beds mapped. Shale locally contains slightly to well-bedded granules, cobbles, and boulders of chert and a wide variety of limestone lithologies (micritic to biohermal granitobasalts and padstones). Other lithologies include thin beds of calcareous shale, micritic limestone, and micritic limestone. The sandstone and coarse, micritic, phacelitic? nodules, and disseminated graptolite. Limestone dashes have been correlated with lower and middle Paleozoic units exposed to the north and west; chert clasts may be Woodford (Mississippian). Maximum thickness approximately 2,800 (1,850) south of Chocoma place. | |
| PERCIS FORMATION (PENNSYLVANIAN) –Predominantly poorly exposed, grayish-orange (10YR/4), yellowish, gray (Y7/2) to dusty yellow (N4), to fine to medium-grained, quartzite, nonconspicuous, massive, and massive to parallel to ripple cross-bedded. Contains thin beds of nonconspicuous laminated shale and siltstone, to medium bedded sandstone. Sandstones mostly light brown (Y6/4) to grayish orange (10YR/4); varying from fine- to coarse-grained, with rare granule concentrations, rarely calcareous or fossil, and massive to parallel to ripple cross-bedded. Siltstone and sandstone are massive to parallel to ripple cross-bedded. The marker beds mapped. Shale locally contains slightly to well-bedded granules, cobbles, and boulders of chert and a wide variety of limestone lithologies (micritic to biohermal granitobasalts and padstones). Other lithologies include thin beds of calcareous shale, micritic limestone, and micritic limestone. The sandstone and coarse, micritic, phacelitic? nodules, and disseminated graptolite. Limestone dashes have been correlated with lower and middle Paleozoic units exposed to the north and west; chert clasts may be Woodford (Mississippian). Maximum thickness approximately 2,800 (1,850) south of Chocoma place. | |

SYMBOLS

- CONTACT-Dashed where approximately located
 ----- MARKER BED
 ▼-----▼ THRUUST Fault-Sawtooth on upper plate; dashed where approximately located; dotted where concealed
 ----- FAULT-Arrows show relative horizontal movement; dashed where approximately located; dotted where concealed
 ----- ANTICLINE-Showing crestline; dashed where approximately located; dotted where concealed
 ----- OVERTURNED ANTICLINE-Arrows show direction of dip of limbs; dashed where approximately located; dotted where concealed
 ----- SYNCLINE-Showing troughline; arrow shows direction and amount of plunge where known; dashed where approximately located; dotted where concealed
 ----- OVERTURNED SYNCLINE-Arrows show direction of dip of limbs; dashed where approximately located; dotted where concealed
 +----- MINOR ANTICLINE-Arrow shows direction and amount of plunge
 +----- MINOR SYNCLINE-Arrow shows direction and amount of plunge
 STRIKE AND DIP OF BEDS
 ↗ Strike and dip of beds, facing direction unknown
 † Vertical beds, facing direction unknown
 ↗ Strike and dip of beds, upright
 † Vertical beds, ball indicates top of beds
 ↗ Strike and dip of beds, overturned
 ⊗ Horizontal beds
 OIL AND GAS WELLS
 ○ Dry hole, abandoned
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- The map displays a geological area with several towns labeled: HASKELL, LATIMER, and BELT. A prominent feature is a 'FOLD' indicated by a dashed line. The map also shows 'OIL AND GAS WELLS' and 'CONTACT' lines. The legend on the left provides the key for the symbols used on the map.



INDEX TO QUADRANGLES AND CROSS SECTIONS

ACACIBON	CONCEI	WILSONTON	TRINCLA	RED OAK	LESTON	ROBINSONFIELD	WINTER	HEATHHURST	BAVIES
HARTSDORNE	HOBSON	LESTON	BAKER WOODSTON	TRINCLA	BLACKHATCH ROAD	LESTON SE	HOBSON	HORTONHURST	LOWBURY

