



EXPLANATION

— 1800 —
 — 2000 SS —

STRUCTURE CONTOURS—Drawn on top of the Hartshorne coal bed. Solid where vertical accuracy within 50 feet; long dashed where vertical accuracy possibly not within 50 feet; Hashes indicate closed contours of basin. Contour interval is 200 feet (61.0m). Datum is mean sea level.

— 800 —
 — 1000 UH —

STRUCTURE CONTOURS—Drawn on top of the Upper Hartshorne coal bed. Contour interval 200 feet (61.0m). Datum is mean sea level.

— 800 —
 — 1000 LH —

STRUCTURE CONTOURS—Drawn on top of the Lower Hartshorne coal bed. Contour interval 200 feet (61.0m). Datum is mean sea level.

○ -4 UH
 ○ -57 LH

COAL TEST MEASUREMENT—Showing altitude of top of coal beds, in feet. Drill holes which did not intersect the coal bed or mine measured sections from which bed altitude could not be determined, are not shown.

● -2310 (SS)

OIL AND GAS TEST HOLE—Showing altitude of top of the Hartshorne Sandstone Formation selected because of its close proximity to the Upper Hartshorne - Hartshorne coal zone in wells where the suite of logs was insufficient to verify coal occurrence. Wells for which logs of the first 3,000 foot (914.4m) interval were not available or wells whose logged interval began below the base of the Hartshorne Sandstone Formation are not shown. Appendix II structural top information which could not be verified is similarly not shown.

— LH —

INFERRED TRACE OF COAL BED OUTCROP—Showing symbol of trace of coal bed. Arrow points toward coal-bearing area.

NOTE: Altitudes rounded to the nearest foot.
 To convert feet to meters, multiply feet by 0.3048.

Base from U.S. Geological Survey, 1940
 This map intended for land-use planning purposes only.

This report was prepared under contract to the U.S. Geological Survey, and has not been edited for conformity with Geological Survey editorial standards or stratigraphic nomenclature. Opinions expressed herein do not necessarily represent those of the Geological Survey.

UTM GRID AND 1979 MAGNETIC NORTH DECLINATION AT CENTER OF SHEET

SCALE 1:24,000

CONTOUR INTERVAL 20 FEET
 NATIONAL GEODETIC VERTICAL DATUM OF 1929

Complied 1980/1981

PLATE 13
STRUCTURE CONTOUR MAP
OF THE UPPER AND LOWER
HARTSHORNE COAL BEDS

FEDERAL COAL RESOURCE OCCURRENCE MAP OF THE NORTHWEST QUARTER OF THE RED OAK
15-MINUTE QUADRANGLE, LATIMER COUNTY, OKLAHOMA

BY GEOLOGICAL SERVICES OF TULSA, INC., AND B. T. BRADY, USGS