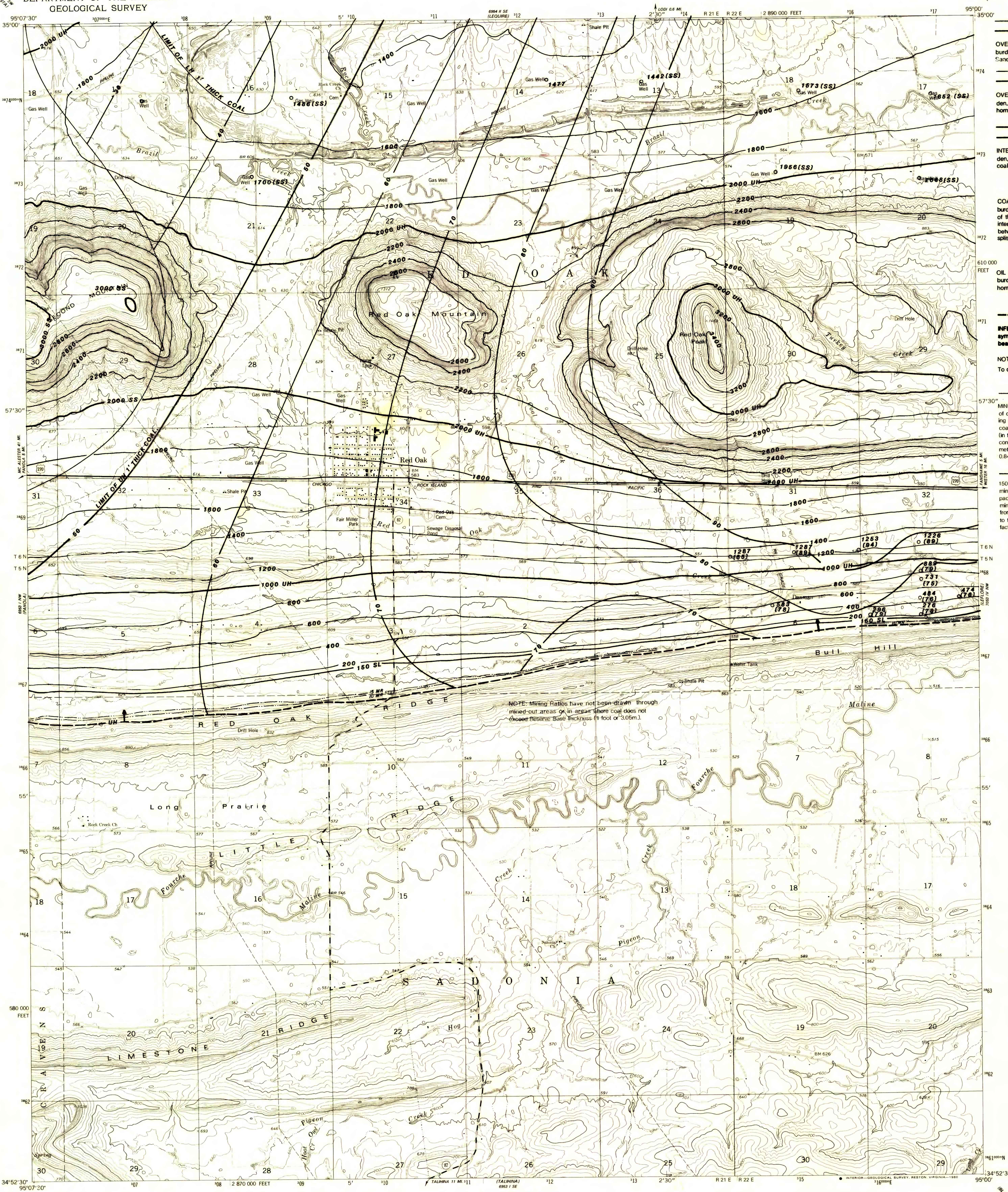


UNITED STATES
DEPARTMENT OF THE INTERIOR
GEOLOGICAL SURVEY



EXPLANATION

-800
-1000 (SS)

OVERBURDEN ISOPACHS-Showing thickness of overburden, in feet, from the surface to the Hartshorne Sandstone Formation. Isopach interval 200 feet (61.0 m.)

2800
3000 UH

OVERBURDEN ISOPACHS-Showing thickness of overburden, in feet, from the surface to top of the Upper Hartshorne coal bed. Isopach interval 200 feet (61.0 m.)

50
60

INTERBURDEN ISOPACHS-Showing thickness of interburden, in feet, between the Upper and Lower Hartshorne coal beds. Isopach interval 10 feet (3.05 m.)

01226 (SS)

COAL TEST MEASUREMENT-Showing thickness of overburden, in feet, from the surface to top of the Upper Hartshorne coal bed and thickness of interburden, in feet, between the Upper Hartshorne and Lower Hartshorne splits of the Hartshorne coal beds.

1700 (SS)

OIL AND GAS TEST HOLE-Showing thickness of overburden, in feet, from the surface to top of the Hartshorne Sandstone Formation.

UH

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

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

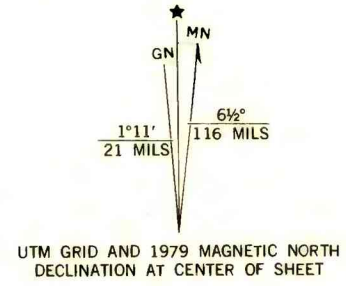
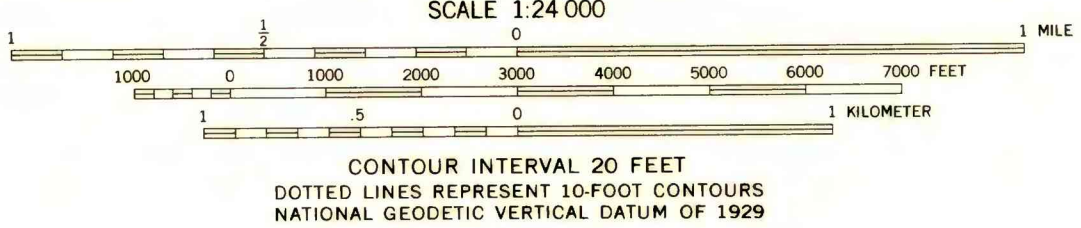
15MR

MINING-RATIO CONTOUR-Number indicates cubic yards of overburden per ton of recoverable coal by surface mining methods. Contours shown only in areas underlain by coal of Reserve Base thickness within the stripping-limit (in this quadrangle, the 150-foot-overburden isopach). To convert mining ratio to cubic meters of overburden per metric ton of recoverable coal, multiply mining ratio by 0.8428.

150 SL

150 SL STRIPPING-LIMIT LINE-Boundary for surface mining (in this quadrangle, the 150-foot-overburden isopach). Arrow points toward the area suitable for surface mining where the recovery factor is 80 percent, and away from the area suitable for subsurface mining (down dip to the 3,000-foot-overburden isopach) where the recovery factor is 50 percent.

NOTE: Mining Ratios have not been shown through mined-out areas or in areas where coal does not exceed Reserve Base thickness (1 foot or 3.05 m.)



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.

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

COMPILED IN 1980

This map intended for land use planning purposes only.

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

PLATE 14
INTERBURDEN ISOPACH MAP
OF THE UPPER AND LOWER
HARTSHORNE COAL BEDS AND
OVERBURDEN ISOPACH AND MINING
RATIO MAP OF THE UPPER
HARTSHORNE COAL BED