PRICE GRAMPS
( Oil )
T. 33 N., R. 2 E., NMPM
Archuleta County, Colorado

GEOLOGY
Regional Setting: Northeastern San Juan Basin (Brazos Uplift)
Surface Formations: Cretaceous, Mancos Shale, Mesaverde Group, Lewis Shale, and recent alluvium
Exploration Method Leading to Discovery: Surface and subsurface geology
Type of Trap: Faulted asymmetrical anticline
Producing Formation: Cretaceous, Dakota Sandstone
Gross Thickness and Lithology of Reservoir Rocks: 162 feet (average gross Dakota thickness); sandstone with some thin shale interbeds
Geometry of Reservoir Rock: Sheet sandstone
Other Significant Shows: Cretaceous, Greenhorn Limestone; Jurassic, Morrison Formation, Entrada Sandstone
Oldest Stratigraphic Horizon Penetrated: Basement

DISCOVERY WELL
Name: Hughes Brothers No. 2 Hughes
Location: SE SE (142' FSL and 1048' FEL), sec. 24, T. 33 N., R. 2 E., NMPM
Elevation (GL): 8,108 feet
Date of Completion: December 3, 1935
Total Depth: 1,172 feet
Production Casing: Set at top of Dakota, 1,090 feet
Perforations: Open hole, 1,090 to 1,172 feet
Stimulation: Natural
Initial Potential: 217 BOD (pump)
Bottom Hole Pressure: 200 psia

DRILLING AND COMPLETION PRACTICES
Early completions were open hole; presently, casing is run and cemented through the productive interval which is selectively perforated.

RESERVOIR DATA
Productive Area:
- Proved (as determined geologically): 150 acres
- Unproved: 0 acres
Approved Spacing: None
No. of Producing Wells: 24
No. of Abandoned Wells: 17
No. of Dry Holes: 9 (defining field limits)
Average Net Pay: 30 feet
Porosity: 13.6 percent, average; 4.0 percent minimum (from core analysis) to 21.1 percent maximum
Permeability: 100 millidarcies

By: W. Donovan
Dugan Production Corp.

Water Saturation: 35 percent
Initial Field Pressure: 200 psia
Type of Drive: Partial water drive
Gas Characteristics and Analysis: None
Oil Characteristics and Analysis: 31.4° API gravity, intermediate paraffinic, 60°F pour point
Associated Water Characteristics and Analysis: Fresh
Original Gas, Oil, and Water Contact Datums: +6,849, oil-water contact
Estimated Primary Recovery: 7,200,000 BO (30 percent)
Type of Secondary Recovery: None
Present Daily Average Production: 140 BOD
Market Outlets: Plateau Refinery

FIELD COMMENTARY
The Price Gramps Field is located in Archuleta County, Colorado, 12 miles east of Chromo. The field is within the boundaries of the Banded Peak Ranches. Geologically, it is located on the northern extremity of the Brazos Uplift. The field is on the faulted crest of an asymmetrical anticline. The structural axis of the anticline trends north-northwest. The dip ranges from 10° to 20° on the western flank and from 35° to 50° on the eastern flank. A major east trending fault (Gramps Fault) crosses the highest structural position of the anticline. The northern block has moved down approximately 600 feet and easterly approximately 1,000 feet, relative to the southern block. The Dakota Sandstone in the upthrown (southern) block is sealed by the Mancos Shale. The high structural position of the Dakota is the primary factor governing the accumulation of oil. The principal productive horizon is the Cretaceous, Dakota Sandstone, however, there have been shows in the Jurassic, Morrison Formation and Entrada Sandstone. The Dakota, which averages 162 feet thick, consists of very fine to fine grained sandstone beds interbedded with siltstone and thin black shale beds. The success of the unstimulated, open hole completions indicates that the sandstone units have good porosity and permeability. The field is in the late stages of primary recovery. As indicated by the decline curves, the field has a fairly active water drive.

REFERENCES

Oil and Gas Fields of the Four Corners Area]