Rebirth of the Hunton in the Sooner Trend Field of Oklahoma*

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Abstract

The Sooner Trend Field located in Northwest Oklahoma, initially developed in the 1960’s, has been brought to the forefront in renewed development due to advances in horizontal drilling and hydraulic fracturing. The Hunton was historically a secondary target in exploration of the Mississippi Limestone. Operators would typically discover low porosity fractured limestone with hydrocarbon shows. Occasionally, high porosity zones were discovered that resulted in prolific oil and gas production. Distinctive geology within the Hunton has made it difficult to fully deplete through conventional technology resulting in significant bypassed reserves. Identification and rediscovery of these reserves has been aided by geological mapping, investigation of offset production, and analysis of natural fractures identified in borehole images. Successful horizontal well development has resulted. Unlike the “statistical” approach to resource plays, where geology is so much of an afterthought, geology has been key to exploitation!
“Rebirth of the Hunton in the Sooner Trend Field of Oklahoma”

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REGIONAL HUNTON ISOPACH

TOTAL PRODUCTION
4,561,233 BOE

TOTAL PRODUCTION
4,042,442 BOE
STACK FORMATIONS
OSWEGO
MANNING
MISSISSIPPI MERAMEC
MISSISSIPPI OSAGE
WOODFORD
HUNTON
REASONS FOR HUNTON FRACTURES

1. EXTENSIONAL TECTONICS

2. WEATHERING OF THE HUNTON-PHYSICAL AND CHEMICAL PROCESSES

3. BRITTLENESS OF THE ROCK AND BED THICKNESS

4. FOLDING
CASHION FIELD
HORIZONTAL PRODUCTION

TOTAL PRODUCTION
4,042,442 BOE

CUMULATIVE AREA HORIZONTAL HUNTER PRODUCTION
10,000,659 BOE
CUMULATIVE AREA HORIZONTAL MISS PRODUCTION
6,707,416 BOE
REGIONAL HUNTON ISOPACH
REGIONAL STRATIGRAPHIC X-SECTION AA-AA'
TOTAL PRODUCTION
4,561,233 BOE
FARLAND 1-32H

CUM BOE = 42,890
THRASHER 1-1H

CUM BOE = 381,600
CUM BOE = 442,700
GAMEBIRD 1-7H

CUM BOE = 318,799
CLARITA STRATIGRAPHIC X-SECTION G-G'
GEOLOGY LIVES!!
THANK YOU!!