Some Observations on Simpson Group Production in the Eola-Robberson Field, Garvin County, Oklahoma.

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Eola-Robberson Field
Structure on Top Bromide Dense
250’ C.I., 1000’ Color Change
LOOK AROUND
For more fields like Eola

LOOK IN
For what remains in fields like Eola

LOOK OUT
For some of the things seen in the Simpson at Eola
Eola-Robberson Field
Structure on Top Bromide Dense
250’ C.I., 1000’ Shade Change
Sohio Petroleum Company, with extensive holdings in Eola Field, is presently drilling 3 off-set wells to the discovery well, and 2 out-post wells. Geologists are of the opinion that there are other pay zones immediately below the lower McLish Sand.
Eola Field
Structural Cross Section D- D'

No Vertical Exaggeration

Location Map (from Figure 1)
EOLA ROBBERSON SIMPSON POOLS
BASAL BROMIDE STRUCTURE

12 MMBO
11 MMBO
57 MMBO
14 MMBO
3 MMBO
53 BCF

EOLA SIMPSON PRODUCTION
>100 MMBO & 400 BCF

EOLA ROBBERSON SIMPSON POOLS
BASAL BROMIDE STRUCTURE
Fig. 6.—Section A-A', southwest to northeast (see Fig. 3.).

Top Viola

Swesnick & Green, AAPG Bull., Vol. 34, No. 11, p.2176-2199, Nov. 1950
Top Viola

3—Eola has over 3,000 ft. of relief; on the northeast flank oil is trapped against a reverse that has between 800 and 1,400 ft. of throw.
Fig. 6.--Structure sections, Eola field, Line A-A' from southwest to northeast, through secs. 19, 20, 17, and 8, T. 1 N., R. 2 W. (Fig. 5).
FIG. 6—Cross section AA', Eola field, from Harlton (1964); revised. Multiple fault types occur in Washita Valley fault zone.
Top Viola

Saxon, OGS Circular 97, p. 280-282, 1995
Eola Field Structural Cross Section A-A'

No Vertical Exaggeration

Location Map (from Figure 1)

Figure 3

McCaskill, University of Oklahoma M.S. Thesis, 68 pp., 1997
Eola Field
Structural Cross Section C-C'

Location Map (from Figure 1)
LOOK AROUND
FOR MORE FIELDS LIKE EOLA

LOOK IN THE SNOW
WHERE OTHERS STOP THEIR
CONTOURS,
THAT IS WHERE TO LOOK

LOOK FOR THE LEAKS
LOOK IN THE
MAJOR FAULT
SYSTEMS

LOOK IN THE
DEFORMED
AREAS
REALLY
LOOK
PRE-PENNSYLVANIAN PALINSPASTIC RECONSTRUCTION

CURRENT EOLA-ROBBERSON FIELD IN RED

TOWNSHIPS LINES ARE RELATIVE TO THE EOLA NORTH BLOCK
JGMc 1/4/2002
LOCATION AT TIME OF DEPOSITION
PRESENT DAY LOCATION
Tomlinson, et al, 1952 Ardmore Geol. Soc. Field Trip

Mill Creek

South Block

after McCaskill, 1997

North Block

(Simpson Group)

290' (89 m)

Lower Viola Limestone

212' (65 m)

Bromide Dense Limestone

22' (7 m) Bromide Green Shale

28' (9 m)

114' (35 m)

Upper Bromide Sandstone

127' (39 m)

Tulip Creek Shale

110' (34 m)

Basal Bromide Sandstone (Tulip Creek Sandstone)

396' (121 m)

Upper McList Sandstone

310' (94 m)

McList Limestone and Shale

122' (37 m)

Basal McList Sandstone

480' (146 m)

Oil Creek Shale

50' (15 m)

Basal Oil Creek Sandstone

141' (43 m)

Joints Limestone

105' (32 m)

West Spring Creek Limestines and Dolomites

(Arkville Group)

(Simpson Group)

100' (30 m)

Bromide Dense Limestone

186' (56 m)

Upper Bromide Sandstone

150' (46 m)

Tulip Creek Shale

480' (146 m)

Oil Creek Shale

50' (15 m)

Basal Oil Creek Sandstone

141' (43 m)

Joints Limestone

105' (32 m)

West Spring Creek Limestines and Dolomites

(Arkville Group)
Pan-American # 1 Lynn Wiley, 4-1N-3W, Garvin Co., OK 9,870-80’

Lower Viola / Bromide Dense Cuttings Comparison
WEST TO EAST STRAT CROSS SECTION OF SOUTH BLOCK EOLA SIMPSON - DATUM McLISH LM.

- UPPER BROMIDE
- BASAL BROMIDE
- BASAL McLISH
- BASAL OIL CREEK
WEST TO EAST STRAT CROSS SECTION OF NORTH BLOCK EOLA SIMPSON - DATUM McLISH LM.
STRAT CROSS SECTION
NORTH BLOCK / SOUTH BLOCK COMPARISON
SIMPSON - DATUM McLISH LM.
Repeat Formation Tester Showing Sands With Varying Waterflood Support And With Virgin Pressure
Repeat Formation Tester Showing Pressure Isolation between Porosity Lobes

Upper Bromide

12

Basal Bromide

5

McLish Lime

Upper McLish

7

FSP: 1882

FSP: 3070

FSP: 1340

FSP: 1778

FSP: 1595

FSP: 2305
Lenticular Nature of Individual Sand Porosity Lobes
Eola-Robberson Field
Structure on Top Bromide Dense
250’ C.I., 1000’ Color Change
EOLA-ROBBERSON FIELD
Wsn:521 WELL: 35-049-24614-00 (COOK UNIT 3-12 CIMAREX) [DEV]
COOK UNIT 3-12
BROMIDE & MCLISH

BR & MCL 360,618 BO
BR & MCL 1,846,684 MCF
Lot of missing gas months
Lot of missing gas months
Propose Plugging

Put on Pumping Unit

BBR 2,634,951 BO

BBR 6,755,656 MCF

Some missing gas months
BBR 234,104 BO

BBR 76,873 MCF

Lot of missing gas months

Put on Pumping Unit
Low Resistivity Basal McLish Production in NWFBU

Productive

Wet

Productive
Some Eola Oil-Water Contacts
Basal Oil Creek
Loss of Permeability Near Fault
Due to Deformation Bands
Tex/Con #10-4 ENFBU

12-1N-3W

Upper Basal Oil Creek Sand

Lower Basal Oil Creek Sand

Joins

Oil Creek Shales & Limes

"Hard Streak"