STARR F. SCHLOBOHM OIL OPERATIONS

PAUL P. KARLIN (P. P. KARLIN) - MEOR FIELD TRIAL CASE HISTORY #100

Oil Field Name: Catharine Field, Discovered in 1936

Location: SW/4, SW/4, SE/4 - SEC 9, T13S, R17W - Ellis Co., KS

Formation: Lansing, KC - 3418ft - 13 ft thick Arbucle - 3585ft - 18 ft thick

The P.P. Karlin is a 1 well lease that averaged 144 BOD at completion in 1936. When treated in 1989 it averaged about 2 BOD. It was selected as a candidate for MEOR treatment because of its failing oil production, limestone formation, and moderate down hole temperature.

P. P. Karlin Completion History:

Drilled in	12/01/1949
Completion Depth	3,590 ft.
Casing Depth	3,585 ft.
Avg. oil production at completion	144 bbl/day
Oil production 1990 (Before WP-5 Treatment)	2 bb1/day
Oil/Water ratio at completion	.No Water
Oil/Water ratio 1990 (Before Treatment)	1:3.5
Type of Formation	Limestone
Down Hole Temperature	. 80 – 85° F
Thickness of Oil Bearing Formations	8 & 5 Ft.
Permeability (k)	. ?
Porosity	. ?
API Gravity	. 27°
Type Oil	Paraffinic
Water Saturation:	. ?
Initial Treatment Date:	. 11/28/1989

INITIAL TREATMENT METHOD:

The well bore fluids were pumped down, and 20 gallons of #2 diesel were injected through the annulus. A low volume slug of Wel-Prep 5 (15 gallons) was then injected, and followed with three barrels of lease water as a back flush. The well was shut in for 5 days and then turned back into production. Oil production was monitored daily.

<u>IMMEDIATE PRE-TREATMENT</u> <u>POST-TREATMENT</u>

Oil: 14.2 bbls/wk 17.8 bbls/wk

Oil/water ratio: 1:3.5

<u>COMMENTS</u>: A lead line leak developed just 10 days after the well was turned back into production following its initial treatment. This caused an unscheduled shut in of 17 days. However, past history does not indicate significant flush production following similar prolonged shut in periods, and the 33 bbls of oil produced during the first week after the unscheduled 17 day shut in is not all considered flush production. The P. P. Karlin has increased weekly oil production by 25% or 3.6 barrels for the 54 week period from initial treatment to 12/31/1990. This amounts to an additional 194 barrels of oil produced.