

**S. E. Bluff Upper Carter Oil Unit  
Oil Reserves with Waterflood**

Current Oil Reservoir Size (Acres) (Incl. Gas Cap)	407.44	
Original Oil Reservoir Size (Acres)(Excl. Gas Cap)	387.31	
Current Oil Reservoir Volume (Net Oil Pore Volume -Ac Ft)	338.936	
Original Oil Reservoir Volume (Net Oil Pore Volume -Ac Ft)	328.350	
Current Avg Oil Reservoir Thickness (Porosity -Ft)	0.8319	
Original Avg. Oil Reservoir Thickness (Porosity Ft.)	0.8478	
Avg. Porosity	12.8%	
Water Saturation (Sw)	18%	
Oil API GR	34.0	
Original Reservoir Bbl/STB (Bo)	1.05	
Residual Oil Saturation (Sor)	30%	
Cumulative Oil Production (3/05)	103,228	STB
Cumulative Gas Production (3/05)	518,813	MCF
Cumulative Water Production (3/05)	3560	Bbls

$$\text{OOIP} = \frac{(7758)(\text{Porosity Ac Ft.})(1-S_w)}{B_o}$$

$$\text{OOIP} = \frac{(7758)(328.35)(.82)}{1.05} = 1,989,350 \text{ STB}$$

$$\text{Primary Recovery (3/31/05)} = \frac{103,228}{1,989,350} = 5.19\%$$

$$\text{Est. Rec. Factor w/Secondary} = \frac{1-S_w-S_{or}}{1-S_w} \times \text{S.E.} = \frac{.52}{.82} \times .40 = 25.37\%$$

$$\text{Est. Recovery w/Secondary} = 1,989,350 \times .2537 = 504,698 \text{ STB}$$

$$\text{Est. Primary Recovery (6\% OOIP)} = 119,361 \text{ STB}$$

$$\text{Est. Secondary Recovery} = 504,698 - 119,361 = 385,337 \text{ STB}$$

**STATE OIL AND GAS BOARD**

Exhibit No. 17  
 Petition By Hughes Eastern  
 Item No. 22, 23, 24 Date 3-8-08  
 Testimony Of Pawlik  
 Received By MR

Exhibit #17  
 Docket #2-6-08-13, #2-6-08-14,  
 #2-6-08-15

To the Testimony of:

Emil H. Pawlik  
 Emil H. Pawlik