Chapter 7

AVANT EXPANSION
North Avant Expansion

Wolco Pilot
Shot Hole Plug Back

Plug with sand

Dress off cement plug to KOP

Set balanced cement plug on top of sand into casing

Drill curve with curve drilling assembly

Clean fill and junk out of hole to below KOP
North Avant Expansion

The effect of 325 and 328 on production

55 BOPD x 850 BWPD
North Avant Expansion

4 Horizontal Wells
55 BOPD x 850 BWPD

The effect of 325 and 328 on production
North Avant Expansion

Wolco Pilot

5A
4A
1A
6A
36
8
325
326
North Avant Expansion

The effect of 36 on production

85 BOPD x 1200 BWPD
North Avant Expansion

The effect of 36 on production

5 Horizontal Wells
85 BOPD x 1200 BWPD
North Avant Expansion

Diagram showing a grid with coordinates 24, 19, 25, 30, and a section labeled "Wolco Pilot." Nodes labeled 36, 8, 325, 328, 5A, 1A, 6A, and 4A are marked on the diagram.
North Avant Expansion

Production after re-drilling 8

110 BOPD x 1500 BWPD
North Avant Expansion

Production after re-drilling 8

6 Horizontal Wells
110 BOPD x 1500 BWPD
How?

Produced Oil (bbls)

Injected/Disposed Water (bbls)

BWPM

BOPM

0 to 110 BOPD
Avant Expansion

Conclusion

- 2 new vertical wells: Re-drilled horizontal

- 4 old wells (95+ years): Plugged back and drilled horizontal

- 1 old well: Plugged back and re-drilled horizontal
Workshop Summary

1. Team approach

2. Understand depositional environment

3. Computer model reservoir to determine economics of horizontal wells

4. Determine completion requirements

5. Design horizontal drilling program to satisfy completion requirements