

Ross Federal No. 4
3100' FNL & 2600' FEL
Sec 4, T21S R24E
Down Hole Commingle Procedure

OBJECTIVE:	Commingle Morrow and Atoka
WELL DATA:	
13-3/8" 48#/ft H-40 ST&C casing:	Set at 400.77' KB Cmt w/400 sx, circ 75 sx to surf.
9-5/8" 36.0#/ft J-55 LT&C casing:	Set at 3009.60' KB, Cmt w/ 800 sx, circ 48 sx to surf.
4-1/2" 11.6# N-80 LT&C casing:	Set at 9,831.79', Cmt w/950 sx. TOC 8852' by temp survey. Marker jts 13.74' @ 9,321.55' and 13.74' @ 8,995.37
Perfs:	Below retrievable packer: 9090'-9101'(22 h) Below permanent packer: 9576'-80' (16 h), 9582'-84' (8 h), 9592'-9610' (72 h), 9654'-56' (8 h), 9658'-62' (16 h); total 120 holes.
Packer:	4-1/2" Arrowset 1 10K set @ 8950 +/-, 4-1/2" Arrowdrill perm packer (3.75 OD x 2.688 ID) on WL @ 9350', w/2-3/8" EUE 8rd N-80 x 8' sub, 2-3/8" x 1.781" "R" frac hardened profile nipple, with 1.781" blanking plug, 3-1/2" OD WL entry guide.
Tubing:	283 jts 2-3/8" EUE 8rd N-80 tubing
TD:	9,831.79'KB csg landed
PBTD:	9350' Arrowdrill Permanent Packer (9,783.91' KB float collar)

1. RU slickline services and RIW with 1.781" "R" retrieving tool and retrieve 1.781" "R" blanking plug set in profile nipple @ 9358'.
 2. Return well to production with Atoka and Morrow zones producing.
- Mtj 1-6-03