

CONOCO STATE #1  
DRILLING & COMPLETION PROCEDURE  
VACUUM ABO SINGLE COMPLETION

1. Drill 17-1/2" hole to <sup>350'</sup>~~250'~~ using spud mud. Run 13-3/8" casing to bottom and circulate cement to surface using Class H cement containing 2% CaCl<sub>2</sub>. WOC a minimum of 18 hours and test casing to 500 psi before drilling shoe.
2. Drill 12 1/2" or 11" hole thru the salt section but do not penetrate the Yates porosity. The red bed section can be drilled with spud mud, then convert to a saturated brine to drill the salt section. Run 8-5/8" casing to bottom and circulate cement to the surface using Lite-Wate (13.1#/gal) containing 7 1/2# salt/sack and tail in with Class C neat containing 2.6# salt/sack with a slurry density of 14.9#/gal. WOC a minimum of 18 hours. Test to 1000 psi before drilling out.
3. Drill 7-7/8" hole to TD. Drill out from under 8-5/8" surface casing with fresh water. Approximately 200' before reaching TD mud up with gel and starch to condition hole. Run 5 1/2" casing and circulate cement to surface using a light slurry (12.4#/gal) and tail in with Class C neat to cover pay zone. WOC 24 hours and test casing.
4. MIRU DD Unit. Run 2-3/8" tubing and bit to PBTD. Displace hole to Abo oil and spot 500 gals 15% NE acid on bottom. POH.
5. Run PDC log and perf the Abo as directed by Geologist.
6. Displace acid into formation and swab back to clean up.
7. Acidize with 10,000 gals 15% NE acid containing 5# friction reducer/1000 gals down 2-3/8" tubing at 5-6 BPM. Ball sealers should be used to open all perfs. Estimated treating pressure 5000 psi.
8. Swab back immediately to clean up and test.
9. Run 48 hr BHP build up.
10. Complete as a single Abo producer.

~~10/25/73~~  
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OCT 11 1977

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WASHINGTON, D. C.