

## REMEDIAL CEMENTING PROCEDURE

WILL CARY NO. 8  
DRINKARD OIL  
2310' FSL & 990' FWL  
SEC. 22, T-22-S, R-37-E  
LEA COUNTY, NEW MEXICO

August 8, 1975

### Well Data

Elevation: 3355' DF  
Total Depth: 7163'  
PBSD: 6600'  
Casing: 10 3/4" 32.75#/ft. @ 198' w/135 sx. cmt.  
7 5/8" 26#/ft. @ 2768' w/500 sx. cmt.  
5 1/2" 17#/ft. @ 7134' w/95 sx. cmt.  
(cmt. top @ 6100' by CBL)  
Production: Drinkard perms 6404'-34'  
Current Status: TA

Note: NMOCC supervisor must be contacted at least 24 hours prior to start of the following procedure.

### Procedure

1. MIRUPU, kill well w/2% KCl water containing 1 gal. per 1000 Morflo II, install BOPE and POH w/tubing.
2. GIH w/RBP on tubing and set RBP @ 6200'(+). Test to 3000 psi, POH.
3. RU Dresser Atlas. Dump 2 sx. sand on RBP. Perforate w/2 SPF @ 3800' & 3801' (total 4 shots) using a 4" casing gun w/Big Hole Burr Free, 20.0 gm. charges w/.76" hole size.
4. GIH w/E-Z Drill Cement Retainer on wireline and set at 3750'.
5. GIH w/tubing and sting into cement retainer.
6. Open Bradenhead valve and attempt to break circulation. If unable to break circulation, go to Step 8.
7. Circulate the cement into the perms as follows:
  - (a) Pump 200 sx. Class "C" cement containing .6% Halad-22 and 6# salt/sk. through the perms at 3800'-01' (Water Req.: 6.3 gals./sk., Slurry Wt.: 15.4 ppg, Yield: 1.32 cu.ft./sk., Thickening Time: 2 hrs.).

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- (b) Follow the Class "C" slurry with 50 sx. Class "H" with 6# salt/sk. (Water Req.: 4.3 - 5.2 gals./sk., Slurry Wt.: 17.1 - 16.2 ppg, Yield: 1.06 - 1.18 cu. ft./sk.
  - (c) After the 200 sx. of Class "C" cement is put away, close the Braden-head valve and squeeze the last 50 sx. of Class "H" to 500 psi above the pump-in pressure not to exceed 3000 psi maximum. If unable to obtain a squeeze, displace Class "H" cement to the cement retainer, with pumping time not to exceed 1 hr.
  - (d) Pull out of cmt. retainer and reverse out excess cement, and POH w/tubing.
  - (e) Proceed with Step 9.
8. (a) Pull tubing. Perforate w/2 SPF @ 3100' & 3101' (total of 4 shots) using a 4" casing gun w/Big Hole Burr Free, 20 gm. charges (.76" hole size).
- (b) Run tubing, tie into retainer, and break circulation. Pump 200 sx. Class "C" cement containing .6% Halad-22 and 6# salt/sk. into perforations at 3800'-01', displacing cement to retainer. Do not exceed 1 hr. pumping time. If unable to circulate, contact Midland Engineering.
- (c) Pull tubing out of retainer and above upper perforations, reverse out excess cement, and pull tubing.
- (d) Proceed to Step 9.
9. WOC 24 hrs. 8-12 hrs. after pumping, run Worth Well Temperature Survey from 2500' to cement retainer. Relay results to Midland Engineering and to NMOCC.
10. RU reverse equipment and GIH w/bit and drill collars on workstring and drill out retainer(s) and cement. Test perfs to 500 psi. If cemented perfs won't hold 500 psi, contact Midland Engineering.
11. Reverse sand off the RBP, displace the drilling fluids with 2% KCl water with 1 gals. Morflo II per 1000 gals. and pull RBP.
12. RDMOPU.

AES:cs  
cc: West Area  
C. Engleman

*JAW 8/14*