

SECOND STAGE	LEAD	TAIL
Type	Howco Lite + 1/4 #/sx flocele + 2% CaCl ₂	Cl B + 2% CaCl ₂
Sacks	Calculated annular volume	50-75
Slurry yield	1.84 cuft/sx	1.18 cuft/sx
Mix weight	12.7 ppg	15.6 ppg
Water req's.	9.9 gal/sx	5.2 gal/sx

Precede the first stage with 10 bbls "flow-check" or its equivalent and circulate four hours after opening the stage tool. The second stage can be preceded by 20 bbls of chemical wash unless lost circulation is a problem and flow check is necessary. If cement is not circulated to surface, run a temperature survey after 6 hours to determine actual TOC as the MMS requires. Wait on cement a total of 18 hours from first plug down before drilling ahead.

7. Set slips with casing in full tension and cut-off. NU BOE and test as in procedure 4 above. Record tests on IADC report.
8. Drill out, dry up hole and drill a 6-1/4" hole to T.D. surveying as required. Lay down square drill collar before cutting the Dakota.
9. Log open hole as directed by GE department.
10. If productive, run 4-1/2" 11.6# and 10.5# K-55 casing as a liner. Equip the casing with a float shoe and latch down collar on the top of the first joint. No threadlock is to be used on this arrangement. Hang liner with a 150' lap in the intermediate casing.
11. Cement with a filler slurry as used for the intermediate string. Start with a 20 barrel mud flush, followed by the lead slurry with a fluid loss control additive and tail with 150 sx Class B. Use sufficient quantity (50-75% excess) to circulate cement to the liner top.
12. Circulate out the excess cement, LDDP and MORT.
13. In non-productive, P & A as required by USGS.
14. Install tree and fence remainder of reserve pit.