

STATE "K" #12, #11

CEMENTING DETAIL

SURFACE

8 5/8" 24# USS-50 STC Casing @ 1480'

Casing Running Order

- Float Shoe
- 1 jt 8 5/8" casing
- Float Collar (Thread Lock from FC down)

Centralizers:

- 1 - 5' above shoe
- 1 - 5' float collar
- 1 - every fourth collar to Surface
- Total: 11- centralizers
- 2-stop collars

Surface

Spacer: 25 bbls FW

*Lead: 250 sx "C" + 4% D20 + 2% S1 + 0.25 pps D29

*Tail: 200 sx "C" + 2% S1 + 0.25 pps D29

	<u>Lead</u>	<u>Tail</u>
Weight (ppg)	13.5	14.8
Yield (cf/sx)	1.74	1.32
Mix Water (gps)	9.11	6.32
Thick Time (hrs:min)	≥ 3:20	≥ 2:00
Free Water (cc/30 min)	≤ 1%	≤ 1%
Fluid Loss (cc's)	NC	NC
12 Hr Comp Strength	≥ 500	≥ 700
72 Hr Comp Strength	≥ 1500	≥ 1500
Top of Cement	0	500'

* Est. volumes based on gauge hole + 100% excess.
Run fluid or mechanical caliper to determine exact volumes.

- 1) Chain Down Casing
- 2) Circ. one hole vol. prior to cementing.
- 3) Displace cement w/ FW @ 6-7 bpm. **DO NOT OVERDISPLACE**
- 4) If cement does not circ. to surface, contact Drlg. Supt. and the NMOC.
- 5) Test casing to 1500 psi.
- 6) **WAIT MIN 8 HRS PRIOR TO DRILL OUT**

PRODUCTION

5 1/2" 17 K55 LTC Casing @ 0-2000'

5 1/2" 15.5# USS50 STC Casing @ 2000-7300'

5 1/2" 17# L80 LTC Casing @ 7300-8150'

Casing Running Order

- Float Shoe
- 2 jts 5 1/2" casing
- Float Collar (Thread Lock from FC down)

Centralizers:

- 1 - 5' above shoe
- 1 - 5' above float collar
- 1 - every third collar
- Total: 27- centralizers
- 2- stop collars

Production

Spacer: 25 bbls FW

**Lead: 670 sx 35/65 (Poz/H) + 6% D20 + 5% D44 + 0.25 pps D29

**Tail: 250 sx "H" + .025 pps D29

	<u>Lead</u>	<u>Tail</u>
Weight (ppg)	12.8	16.4
Yield (cf/sx)	1.96	1.06
Mix Water (gps)	10.46	4.34
Thick Time (hrs:min)	≥ 3:00	≥ 2:39
Free Water (cc/30 min)	≤ 1%	≤ 1%
Fluid Loss (cc's)	NC	NC
12 Hr Comp Strength	≥ 400	≥ ***
72 Hr Comp Strength	≥ ***	≥ ***
Top of Cement	3700'	7500"

** Est volumes based on gauged hole size or 50% excess. Run log caliper for actual volumes. Use 25% excess for open hole x 5 1/2" casing annulus.

- 1) Reciprocate casing 15'-20' while conditioning hole
- 2) Circ. one hole vol. prior to cementing.
- 3) Displace cement w/ FW @ 4-6 bpm. **DO NOT OVERDISPLACE**
- 4) WOC 8 hrs. ND BOP & cut casing to install tubing head.