

CEMENTING LOG

Date **4/24/2014** District **Liberal # 21** Ticket No. **52752**
 Company **Palmer Oil** Rig **Duke #9**
 Lease **Brookover** Well No **4-6**
 County **Finney** State **KS**
 Location _____
 Field _____
 Casing Data ☐ Conductor ☐ PTA ☐ Squeeze ☐ Misc.
☒ Surface ☐ Intermediate ☐ Production ☐ Liner
 Size **8 5/8** Type _____ Weight **24#** Collar _____

CEMENT DATA

Spacer Type _____ H2O
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG
 LEAD: Time _____ hrs. Type **65/35 6% gel 3% CC**
.5# flo seal Excess _____
 Amt. **700** Sks Yield **1.97** ft³/sk Density **12.4** PPG
 TAIL: Time _____ hrs. Type **Class A 3%CC .25# flo Seal** Excess _____
 Amt. **200** Sks Yield **1.18** ft³/sk Density **15.6** PPG
 WATER Lead **10.9** Gal/sk Tail **5.3** Gal/sk Total _____ BBLS

Casing Depths Top **0** Bottom **1689**

Pump Trucks Used: **549-550**
 Bulk Equipment **495-554**
705-642

Drill Pipe: BBLS/LIN. FT _____ LIN. FT/BBL _____
 Open Hole: BBLS/LIN. FT _____ LIN. FT/BBL _____
 Capacity Factors: BBLS/LIN. FT **0.0637** LIN. FT/BBL **15.7**
 Casing: BBLS/LIN. FT **0.0637** LIN. FT/BBL **15.7**
 Open Holes: BBLS/LIN. FT **0.1458** LIN. FT/BBL **6.85**
 Drill Pipe: BBLS/LIN. FT _____ LIN. FT/BBL _____
 Annulus: BBLS/LIN. FT **0.0735** LIN. FT/BBL **13.6**
 Perforations From _____ ft to _____ ft Amt _____

Float Equipment: Manufacturer **Weather Ford**
 Shoe: Type **Guide Shoe** Depth **1742**
 Float: Type **AFU Insert Float** Depth **1700**
 Centralizers: Quantity **3** Plugs Top _____ Bottom _____
 Stage Collars _____
 Special Equipment **Cement Basket**
 Disp: Fluid Type **H2O** Amt **108.3** bbls Weight **8.33** PPG
 Mud Type _____ Weight _____

COMPANY REPRESENTATIVE _____

CEMENTER **Lenny Baeza**

| TIME AM/PM | PRESSURES PSI | | FLUID PUMPED DATA | | | REMARKS |
|---------------|----------------------|---------|-------------------|---------------------------|------------------|--|
| | DRILL PIPE CASING | ANNULUS | TOTAL FLUID | PUMPED PER TIME PERIOD | RATE BBLS/MIN | |
| 2:30pm | | | | | | On location @ 2:30pm |
| 5:30pm | | | | | | Rigging up to well head |
| 6:25pm | | | | | | Safety meeting with rig crew |
| 6:27pm | 2000 | | | | | Pressure testing pumping lines to 2000 psi |
| 6:30pm | 200 | | 10 | | 5 | 10 bbls of H2O head of cement |
| 6:34pm | 220 | | 259 | | 5 | Mixing lead cement @ 12.4# |
| 7:14pm | 180 | | 301 | | 4 | Mixing Tail cement @ 15.6# |
| 7:28pm | 0 | | 0 | | 0 | End of cement shutting down to release plug |
| 7:30pm | 120 | | 301 | | 5 | Plug left the head and started displacement of 104 bbls |
| 7:39pm | 140 | | 351 | | 6 | 50 bbls gone |
| 7:48pm | 600 | | 401 | | 5 | 100 bbls gone 5bpm @ 600 psi |
| 7:55pm | 1100 | | 405 | | 3 | 102 bbls gone and landed the plug bumped to 1100 psi and holding |
| | | | | | | released the psi and float holding .5 BBLS BACK TO TRUCK |
| | | | | | | 60bbls of cement to surface |
| | | | | | | rigging down iron |
| | | | | | | |
| | | | | | | leaving location @ 8:30pm |
| | | | | | | |
| | | | | | | |
| | | | | | | THANK YOU !!!!!!!!!!!!!!!!!!!!!!!!!!!!!1 |
| | | | | | | |
| | | | | | | |

FINAL DISP. PRESS. **600** PSI BUMP PLUG TO **1100** PSI BLEEDBACK **#####** BBLS THANK YOU

Date **5/1/2014** District **Liberal # 21** Ticket No. **52447**
 Company **American Warrior** Rig **Duke #9**
 Lease **Brookover** Well No **4-6**
 County **Stevens** State **KS**

Location _____
 Field _____
 Casing Data ☐ Conductor ☒ PTA ☐ Squeeze ☐ Misc.
☐ Surface ☐ Intermediate ☐ Production ☐ Liner
 Size **4 1/2 drillpipe** Type _____ Weight **24#** Collar _____

Casing Depth Top _____ Bottom _____

Drill Pipe BBLs/LIN. FT _____ LIN. FT/BBL _____
 Open Hole: BBLs/LIN. FT _____ LIN. FT/BBL _____
 Capacity Factors: BBLs/LIN. FT _____ LIN. FT/BBL _____
 Casing BBLs/LIN. FT _____ LIN. FT/BBL _____
 Open Hole: BBLs/LIN. FT _____ LIN. FT/BBL _____
 Drill Pipe BBLs/LIN. FT **0.01422** LIN. FT/BBL _____
 Annulus BBLs/LIN. FT _____ LIN. FT/BBL _____
 BBLs/LIN. FT _____ LIN. FT/BBL _____
 Perforations From _____ ft to _____ ft Amt _____

Spacer Type _____
 Amt. _____ Skys Yield _____ ft³/sk Density _____ PPG _____

LEAD: Time _____ hrs. Type **60/40/4% gel**
 Amt. **210** Skys Yield **1.5** ft³/sk Density **13.5** PPG
 TAIL: Time _____ hrs. Type _____

Excess _____
 Amt. _____ Skys Yield _____ ft³/sk Density _____ PPG
 WATER Lead **7.5** Gal/sk Tail _____ Gal/sk Total **28** BBLs

Pump Trucks Used: **530-484**
 Bulk Equipment **774-744**

Float Equipment: Manufacturer _____
 Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top _____ Bottom _____
 Stage Collars _____
 Special Equipment _____
 Disp: Fluid Type **H2O & Mud** Amt _____ bbls Weight _____ PPG
 Mud Type _____ Weight **9.5**

COMPANY REPRESENTATIVE _____ CEMENTER **Edgar A. Rodriguez**

| TIME | PRESSURES PSI | | FLUID PUMPED DATA | | | REMARKS |
|----------|-------------------|---------|-------------------|------------------------|---------------|------------------------------------|
| | DRILL PIPE CASING | ANNULUS | TOTAL FLUID | PUMPED PER TIME PERIOD | RATE BBLs/MIN | |
| 12:30 pm | | | | | | Arrive on location |
| 12:45 | | | | | | Spot equipment and rig up |
| 1:30 | | | | | | Safety meeting |
| 1:43 | | | | | | Start job |
| 1:47 | | | | | | 1st plug @1730' |
| 1:47 | 70 | | 13 | | 4 | Pump 50 sks of cmt (13 bbls @13.5) |
| 1:51 | 30 | | 21 | | 4 | Pump 21 bbls of mud displacement |
| 1:58 | | | | | | Come out of hole with drillpipe |
| 2:27 | | | | | | 2nd plug @930' |
| 2:27 | 60 | | 13 | | 3 | Pump 50 sks of cmt (13 bbls @13.5) |
| 2:36 | 30 | | 10 | | 3 | Pump 10 bbls of displacement |
| 2:39 | | | | | | Come out of hole with drillpipe |
| 2:54 | | | | | | 3rd plug @450' |
| 2:54 | 70 | | 11 | | 3 | Pump 40 sks of cmt (11 bbls @13.5) |
| 2:58 | 30 | | 4 | | 3 | Pump 4 bbls of displacement |
| 3:00 | | | | | | Come out of hole with drillpipe |
| 3:33 | | | | | | 4th plug @60' |
| 3:33 | 40 | | 5 | | 3 | Pump 20 sks of cmt (5 bbls @13.5) |
| 3:36 | | | | | | Come of hole with joint |
| 3:46 | 40 | | 8 | | 2 | Pump 30 sks of cmt in rat hole |
| 3:48 | | | | | | Come of hole with joint |
| 3:50 | 40 | | 5 | | 2 | Pump 20 sks of cmt in mouse hole |
| 4:00 | | | | | | End job |
| 4:20 | | | | | | Rig down |
| 5:00 pm | | | | | | Crew leave location |
| | | | | | | |
| | | | | | | |
| | | | | | | |

FINAL DISP. PRES **70** PSI BUMP PLUG TO _____ PSI BLEEDBACK _____ BBLs **THANK YOU**