



CEMENTING LOG

STAGE NO. _____

Date 9/19/13 District Oakley Ticket No. 061131
 Company Bredco LLC Rig Bredco 2
 Lease Michael Well No. 2-22
 County Rawlins State KS
 Location 22-1-36 Field _____
Beardsly N to AA, S 1/2 W N+E into
 CASING DATA: Conductor PTA Squeeze Misc
 Surface Intermediate Production Liner
 Size 5 1/2 Type New Weight 15.5 Collar _____

Casing Depths: Top KB Bottom 4402

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size 7 7/8 T.D. 4550 ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. .0238 Lin. ft./Bbl. _____
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

CEMENT DATA:
 Spacer Type: _____
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG _____

LEAD: Pump Time _____ hrs. Type 48 AW 1/4" Flo-seal
 Excess _____
 Amt. 450 Sks Yield 1.76 ft³/sk Density 12.92 PPG _____

TAIL: Pump Time _____ hrs. Type Com 10% salt
2% gel 5% gilsonite
 Excess _____
 Amt. 250 Sks Yield 1.49 ft³/sk Density 14.56 PPG _____

WATER: Lead _____ gals/sk Tail _____ gals/sk Total _____ Bbls.

Pump Trucks Used 120 - Tyler
 Bulk Equip. 600 - Alex (TWS)
566 - Brandon

Float Equip: Manufacturer Industrial rubber
 Shoe: Type AFU Depth 4402
 Float: Type Latch down assembly Depth 4359.50
 Centralizers: Quantity 12 Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. Baskets, scratchers
 Disp. Fluid Type Water Amt. 103.76 Bbls. Weight _____ PPG
 Mud Type _____ Weight _____ PPG

COMPANY REPRESENTATIVE _____

CEMENTER Paul Beaver

| TIME | PRESSURES PSI | | FLUID PUMPED DATA | | | REMARKS |
|-------------------|-------------------|---------|-------------------|------------------------|----------------|---------------------------------------|
| | DRILL PIPE CASING | ANNULUS | TOTAL FLUID | Pumped Per Time Period | RATE Bbls Min. | |
| | | | | | | Hold Safety meeting |
| <u>10:00 p.m.</u> | | | | <u>5 bbl</u> | | Start water spacer |
| | | | | | | Start cement |
| | | | | | | mix 450 SKS AW 1/4" Flo-seal |
| | | | | | | stop cement |
| | | | | | | start cement |
| | | | | | | mix 250 SKS Com 10% salt 2% gel 5% g. |
| | | | | | | stop cement |
| | | | | <u>6 Bbl</u> | | wash up pump + lines |
| | | | | <u>103.76 bbl</u> | | release plug |
| | | | | | | Displace with water |
| | | | | | | Plug did land @ 1800# |
| | | | | | | Lift pressure @ 1700# |
| | | | | | | Cement did circulate |
| | | | | | | lost circulation after |
| | | | | | | 90 lobl displacement |
| | | | | | | Hold Safety meeting |
| | | | | | | Thank you! |