

BISON OIL WELL CEMENTING, INC.



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REF. INVOICE # 10251

LOCATION 47-16

FOREMAN Kirk Laibhoff
miller LR marks

TREATMENT REPORT

DATE	WELL NAME	SECTION	TWP	RGE	COUNTY	FORMATION
8-16-11	Powers X 22-02	22	2N	65W	weld	

CHARGE TO <u>Noble</u>	OWNER
MAILING ADDRESS	OPERATOR <u>Noble</u>
CITY	CONTRACTOR <u>Cade 21</u>
STATE ZIP CODE	DISTANCE TO LOCATION
TIME ARRIVED ON LOCATION <u>2:00am</u>	TIME LEFT LOCATION <u>7:30 AM</u>

WELL DATA			PRESSURE LIMITATIONS	
HOLE SIZE	TUBING SIZE	PERFORATIONS	THEORETICAL	INSTRUCTED
12 1/4				
TOTAL DEPTH <u>880.5</u>	TUBING DEPTH	SHOTS/FT	SURFACE PIPE ANNULUS LONG	
PBD <u>823.35</u>	TUBING WEIGHT	OPEN HOLE	STRING	
CASING SIZE <u>8 7/8</u>	TUBING CONDITION		TUBING	

TREATMENT VIA		TYPE OF TREATMENT	TREATMENT RATE
CASING DEPTH <u>869.04</u>		1- SURFACE PIPE	BREAKDOWN BPM
CASING WEIGHT <u>24 lb</u>	PACKER DEPTH	1- PRODUCTION CASING	INITIAL BPM
CASING CONDITION <u>good</u>		1- SQUEEZE CEMENT	FINAL BPM

PRESSURE SUMMARY			
BREAKDOWN or CIRCULATING	psi	AVERAGE	psi
FINAL DISPLACEMENT	psi	ISIP	psi
ANNULUS	psi	5 MIN SIP	psi
MAXIMUM	psi	15 MIN SIP	psi
MINIMUM	psi		

INSTRUCTIONS PRIOR TO JOB Rig up, set log, meeting, PSI test, circ 50 BBLs KCL H2O 2 in 104 Dye, mix & Pump 372 SKs cement at 30% excess at 1.27 yield at 15.2 lbs circ until cement stops up, cement then 50% excess, Performer, Release Plug, Disp 52.4 BBLs H2O, Bump Plug at 150 psi, over lift PSI, wait 5 min Release PSI, washup Rig Down.

Arrived w/ 575 SKs cement 4 gal KCL 16oz Dye N2O test OK
84.1 BBLs slurry

JOB SUMMARY
DESCRIPTION OF JOB EVENTS set log, meeting 5:24 AM circ 5:50 AM cement 6:02 AM

Drop Plug 6:24 AM Displace 6:24 AM
10 BBLs at 5.5 BBLs/m 6:27 AM 250 PSI USED 329 SKs Cement
20 BBLs at 5.5 BBLs/m 6:29 AM 290 PSI used 74.4 BBLs of slurry
30 BBLs at 5.5 BBLs/m 6:31 AM 350 PSI 14% excess
40 BBLs at 5.5 BBLs/m 6:33 AM 510 PSI
50 BBLs at 2.5 BBLs/m 6:37 AM 420 PSI
52.4 BBLs at 1.0 BBLs/m 6:39 AM 320 PSI
Bump Plug 6:39 AM 540 PSI

LFT w/ 246 SKs Cement 2 gal 30% KCL @ Dye BBLs Back 9 BBLs

8-16-11 DATE
AUTHORIZATION TO PROCEED TITLE

Customers hereby acknowledges and specifically agrees to the terms and conditions on this work order, including, without limitation, the provisions on the reverse side hereof which include the release and indemnity