

BISON OIL WELL CEMENTING, INC.



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REF. INVOICE # 10327

LOCATION 48-53

FOREMAN Kirk Kallhoff
Jesse Jeff

TREATMENT REPORT

DATE 10-21-11	WELL NAME Northrup COB-75HN	SECTION 8	TWP 4N	RGE 64W	COUNTY Weld	FORMATION
CHARGE TO Noble		OWNER				
MAILING ADDRESS		OPERATOR Noble				
CITY		CONTRACTOR Ensign 132				
STATE ZIP CODE		DISTANCE TO LOCATION				
TIME ARRIVED ON LOCATION 1:00pm		TIME LEFT LOCATION 6:00pm				

WELL DATA			PRESSURE LIMITATIONS		
HOLE SIZE 13 3/4	TUBING SIZE	PERFORATIONS	THEORETICAL		INSTRUCTED
TOTAL DEPTH 671	TUBING DEPTH	SHOTS/FT	SURFACE PIPE ANNULUS LONG		
PBTD 618.46	TUBING WEIGHT	OPEN HOLE	STRING		
CASING SIZE 9 5/8	TUBING CONDITION		TUBING		
CASING DEPTH 661.06		TREATMENT VIA	TYPE OF TREATMENT		TREATMENT RATE
CASING WEIGHT 36 lb	PACKER DEPTH		[X] SURFACE PIPE		BREAKDOWN BPM
CASING CONDITION good			[] PRODUCTION CASING		INITIAL BPM
			[] SQUEEZE CEMENT		FINAL BPM
			[] ACID BREAKDOWN		MINIMUM BPM
			[] ACID STIMULATION		MAXIMUM BPM
			[] ACID SPOTTING		AVERAGE BPM
			[] MISC PUMP		
			[] OTHER		HYD HHP = RATE X PRESSURE X 40.8

INSTRUCTIONS PRIOR TO JOB Rig up, safety meeting, Pstest, Per conan, circ 5000s KCL H2O, 2nd 104/Dye, wire Pump 362
SKs cement at 30% Excess at 1127 yd at 152 lbs, until cement stops us, no more than 50% Excess,
Release Plug, Disp 47.8 BBls H2O, Bump Plug At 150 Psi, Lift Psi, wait 5min Release Psi, wash up
Rig Down H2O test OK
Around w/ 575 SKs cement 4 gall KCL 16oz Dye 81.8 BBls slurry

JOB SUMMARY
DESCRIPTION OF JOB EVENTS safety meeting 4:08pm circ 4:20pm cement 4:30pm
Drop Plug 5:00pm Displace 5:00pm
used 36% Excess
10 BBls AT 6.0 BBls/m 5:04pm 190psi used 378 SKs cement
20 BBls AT 4.0 BBls/m 5:06pm 150psi 85.4 BBls slurry
30 BBls AT 4.5 BBls/m 5:08pm 260psi
40 BBls AT 3.0 BBls/m 5:10pm 240psi
47.8 BBls AT 1.0 BBls/m 5:15pm 220psi
Bump Plug 5:15pm 450psi

LPTw/ 147 SKs cement 2 gall 3yds KCL 16oz Dye BBls Back 13

AUTHORIZATION TO PROCEED
Noble WSS
DATE 10-21-11