

BISON OIL WELL CEMENTING, INC.



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REF. INVOICE # 10224

LOCATION 46-31

FOREMAN Kirk Kallhoff
mike R LR

TREATMENT REPORT

DATE	WELL NAME	SECTION	TWP	RGE	COUNTY	FORMATION
7-5-11	Five Rivers K10-30D	3	4N	66W	Weld	

CHARGE TO Noble	OWNER
MAILING ADDRESS	OPERATOR Noble
CITY	CONTRACTOR Ensign 126
STATE ZIP CODE	DISTANCE TO LOCATION
TIME ARRIVED ON LOCATION 11:45pm	TIME LEFT LOCATION 3:15am

WELL DATA			PRESSURE LIMITATIONS		
HOLE SIZE 12 1/4	TUBING SIZE	PERFORATIONS		THEORETICAL	INSTRUCTED
TOTAL DEPTH 568	TUBING DEPTH	SHOTS/FT	SURFACE PIPE ANNULUS LONG		
PBTD 515.3	TUBING WEIGHT	OPEN HOLE	STRING		
CASING SIZE 8 7/8	TUBING CONDITION		TUBING		

CASING DEPTH 560.71	TREATMENT VIA	TYPE OF TREATMENT	TREATMENT RATE
CASING WEIGHT 24 LB	PACKER DEPTH	1. SURFACE PIPE	BREAKDOWN BPM
CASING CONDITION good		2. PRODUCTION CASING	INITIAL BPM

PRESSURE SUMMARY					
BREAKDOWN or CIRCULATING psi	AVERAGE psi			3. SQUEEZE CEMENT	FINAL BPM
FINAL DISPLACEMENT psi	ISIP psi			4. ACID BREAKDOWN	MINIMUM BPM
ANNULUS psi	5 MIN SIP psi			5. ACID STIMULATION	MAXIMUM BPM
MAXIMUM psi	15 MIN SIP psi			6. ACID SPOTTING	AVERAGE BPM
MINIMUM psi				7. MISC PUMP	
				8. OTHER	HYD HHP = RATE X PRESSURE X 40.8

INSTRUCTIONS PRIOR TO JOB Rig up, safety meeting, Psitest, circ 3054s KCL H2O, 2nd 10w/ Dye, mix Pump 240SKs cement at 30% Excess at 1.27 yield at 15.2 lbs, At 50% Excess tail w/ Coman if no Dye, Perroman, Release Plug Disp 32.8 BBls H2O, Bump Plug at 150 psi over Lift Psi, wait 5 min, Release Psi, washup Rig Down H2O test OK

Arrived w/ 750SKs cement, 4 gal KCL 16oz Dye 54.2 BBls slurry

JOB SUMMARY

DESCRIPTION OF JOB EVENTS safety meeting 1:17am circ 1:43am cement 1:51am

Drop Plug 2:25am Disp 2:25am

10 BBls At 5.5 BBls/lm 2:29am 4140psi used 139% Excess
20 BBls At 5.5 BBls/lm 2:33am 4170psi used 443SKs cement
30 BBls At 99.7 BBls slurry

32.8 BBls At

Bump Plug NO Perroman

Lift w/ 307SKs cement 3 gal 1st KCL & Dye

BBls Back 24

AUTHORIZATION TO PROCEED

Co-MAN

TITLE

7-5-11

DATE

Customers hereby acknowledge and specifically agree 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