

BISON OIL WELL CEMENTING, INC.



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REF. INVOICE # 9812
LOCATION WCR 14 + 37
FOREMAN Daniel S. Heman

TREATMENT REPORT

DATE	WELL NAME	SECTION	TWP	RGE	COUNTY	FORMATION
5-15-11	Miller x 31-04	31	2 N	65W	Weld	

CHARGE TO <u>Noble</u>	OWNER
MAILING ADDRESS	OPERATOR <u>Noble</u>
CITY	CONTRACTOR <u>ENB 128</u>
STATE ZIP CODE	DISTANCE TO LOCATION
TIME ARRIVED ON LOCATION <u>1:13 AM</u>	TIME LEFT LOCATION <u>9:00 AM</u>

WELL DATA			PRESSURE LIMITATIONS		
HOLE SIZE	TUBING SIZE	PERFORATIONS		THEORETICAL	INSTRUCTED
12" 4					
TOTAL DEPTH <u>10730</u>	TUBING DEPTH	SHOTS/FT	SURFACE PIPE ANNULUS LONG		
<u>16TD</u>	TUBING WEIGHT	OPEN HOLE	STRING		
CASING SIZE <u>8 5/8</u>	TUBING CONDITION		TUBING		

TYPE OF TREATMENT			TREATMENT RATE		
CASING DEPTH	TREATMENT VIA		<input checked="" type="checkbox"/> SURFACE PIPE	BREAKDOWN BPM	
CASING WEIGHT <u>24#</u>	PACKER DEPTH		<input type="checkbox"/> PRODUCTION CASING	INITIAL BPM	
CASING CONDITION <u>Good</u>			<input type="checkbox"/> SQUEEZE CEMENT	FINAL BPM	

PRESSURE SUMMARY					
BREAKDOWN or CIRCULATING	psi	AVERAGE	psi	<input type="checkbox"/> ACID BREAKDOWN	MINIMUM BPM
FINAL DISPLACEMENT	psi	ISIP	psi	<input type="checkbox"/> ACID STIMULATION	MAXIMUM BPM
ANNULUS	psi	5 MIN SIP	psi	<input type="checkbox"/> ACID SPOTTING	AVERAGE BPM
MAXIMUM	psi	15 MIN SIP	psi	<input type="checkbox"/> MISC PUMP	
MINIMUM	psi			<input type="checkbox"/> OTHER	HYD HHP = RATE X PRESSURE X 40.8

INSTRUCTIONS PRIOR TO JOB Ris up, Safety Meeting, psi test Circ 40 bbls of H₂O w/ KCL 1st 10 w 10oz Dye, mix & Pump 325 sks of Cement @ 30% Excess @ 1.48" @ 1.32 yield (Neat) Bring up weight w 3% Calcium to 15.2" 100 sks, tail 1.27 yield, Drop Plug. Displace 65 bbls of H₂O Pump Plug at 150 psi over 1.48 psi wait 5 min Release psi washup Ris Down
Arrived w 500 sks of Neat 200 sks of 3% 3al KCL 32oz Dye 99.0 bbls of slurr

JOB SUMMARY
DESCRIPTION OF JOB EVENTS Safety meeting 6:42 AM Circ to 59 AM Cement 7:10 AM
Drop Plug 7:43 AM Displace 7:43 AM

10 bbls 6.0/m 240 psi
20 bbls 6.0/m 140 psi
30 bbls 6.0/m 310 psi
40 bbls 6.0/m 380 psi
50 bbls 6.0/m 530 psi
60 bbls 3.5/m 460 psi
65 bbls 1.0/m 420 psi
Bump Plug 580 psi
24 bbls to pit

[Signature] AUTHORIZATION TO PROCEED W.S.S TITLE 5-15-11 DATE