

BISON OIL WELL CEMENTING, INC.



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REF INVOICE # 9637
LOCATION WCR 55442
FOREMAN Grant Lowe

TREATMENT REPORT

DATE	WELL NAME	SECTION	TWP	RGE	COUNTY	FORMATION
3-15-11	Herbst C22-25	22	4N	64W	Weld	

CHARGE TO Noble	OWNER
MAILING ADDRESS	OPERATOR Noble
CITY	CONTRACTOR Ensign 136
STATE ZIP CODE	DISTANCE TO LOCATION
TIME ARRIVED ON LOCATION 11:40pm	TIME LEFT LOCATION 3:45 AM

WELL DATA			PRESSURE LIMITATIONS		
HOLE SIZE 12 1/4	TUBING SIZE	PERFORATIONS		THEORETICAL	INSTRUCTED
TOTAL DEPTH 750	TUBING DEPTH	SHOTS/FT			
PBTD 700.64	TUBING WEIGHT	OPEN HOLE			
CASING SIZE 8 5/8	TUBING CONDITION				
CASING DEPTH 742.74		TREATMENT VIA			
CASING WEIGHT 241bs	PACKER DEPTH				
CASING CONDITION GOOD					

PRESSURE SUMMARY			TREATMENT RATE	
BREAKDOWN @ CIRCULATING psi	AVERAGE psi		TYPE OF TREATMENT	BREAKDOWN BPM
FINAL DISPLACEMENT psi	ISIP psi		SURFACE PIPE	INITIAL BPM
ANNULUS psi	5 MIN SIP psi		PRODUCTION CASING	FINAL BPM
MAXIMUM psi	15 MIN SIP psi		SQUEEZE CEMENT	MINIMUM BPM
MINIMUM psi			ACID BREAKDOWN	MAXIMUM BPM
			ACID STIMULATION	AVERAGE BPM
			ACID SPOTTING	
			MISC PUMP	
			OTHER	HYD MHP = RATE X PRESSURE X 40.8

INSTRUCTIONS PRIOR TO JOB Rig up, Safety meeting per CO man, Circ 40 bbls H₂O with KCL + Dyex 10 in 2nd 10 bbls/mix and pump til dye is seen, then pump tub only @ 15.21bs 1.27 yield, drop plug displace 44.6 bbls H₂O, bump plug @ 150 psi over lift press. wait 5 min bleed off press, washup rig down, H₂O tested good.
We have 700 sks, 32oz dye, 10 qts KCL

JOB SUMMARY
DESCRIPTION OF JOB EVENTS Safety meeting 1:41am, circ 2:20am, cement 2:27am to 2:47am
drop plug 2:48am, Displace 2:49am,
10 bbls - 280 lbs @ 2:52am @ 7.0 bbls/min
20 bbls - 350 lbs @ 2:53am @ 7.0 bbls/min
30 bbls - 460 lbs @ 2:55am @ 7.0 bbls/min 26% excess
40 bbls - 450 lbs @ 2:56am @ 4.5 bbls/min
44.6 bbls - 300 lbs @ 2:59am @ 1.0 bbls/min
Bump plug 460 psi @ 2:59am Flat collar held
used 307 sacks, 69.43 bbls slurry, Avg cement 3.47 bbls/min.
left with 393 sacks, 22oz dye, 6 qts KCL
14 bbls slurry to pit

[Signature]

AUTHORIZATION TO PROCEED

WSS

TITLE

3-15-11

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