

BISON OIL WELL CEMENTING, INC.



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REF. INVOICE # 11299

LOCATION WCR 104+111

FOREMAN CALVIN REIMERS

TREATMENT REPORT

DATE	WELL NAME	SECTION	TWP	RGE	COUNTY	FORMATION
1-11-13	CASTOR FEDERAL LLC 22-78HN	22	9N	59W	Weld	

CHARGE TO <u>Noble</u>	OWNER
MAILING ADDRESS	OPERATOR <u>Noble</u>
CITY	CONTRACTOR <u>H&P Rig 326</u>
STATE ZIP CODE	DISTANCE TO LOCATION
TIME ARRIVED ON LOCATION <u>9:45pm.</u>	TIME LEFT LOCATION <u>3:30am</u>

WELL DATA			PRESSURE LIMITATIONS		
HOLE SIZE <u>13 3/4</u>	TUBING SIZE	PERFORATIONS		THEORETICAL	INSTRUCTED
TOTAL DEPTH <u>665</u>	TUBING DEPTH	SHOTS/FT		SURFACE PIPE ANNULUS LONG	
PBTD <u>614.16</u>	TUBING WEIGHT	OPEN HOLE		STRING	
CASING SIZE <u>9 5/8</u>	TUBING CONDITION			TUBING	
CASING DEPTH <u>626.92</u>		TREATMENT VIA	TYPE OF TREATMENT		TREATMENT RATE
CASING WEIGHT <u>3616</u>	PACKER DEPTH		<input checked="" type="checkbox"/> SURFACE PIPE	BREAKDOWN BPM	
CASING CONDITION <u>Good</u>			<input type="checkbox"/> PRODUCTION CASING	INITIAL BPM	
TPWLS <u>656.92</u>	PRESSURE SUMMARY		<input type="checkbox"/> SOOZE CEMENT	FINAL BPM	
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 Safety meeting, Rig up, Psi Check to 500 Psi, Circ 50 bbls H₂O with KCL + Dye x 16 in 2" 10 bbls, Min pump Tell good Dye is SEEN at 15.2 lbs. 1.27 yield, Drop plug, Displace 47.4 bbls. H₂O, Bump Plug at 150 Psi over Lift Psi, Wait 5 min then bleed off Psi, Washup, Rig down

JOB SUMMARY

DESCRIPTION OF JOB EVENTS Safety meeting 10:00pm, Circ 1:05am, CEMENT 1:30am to 2:00am
Drop Plug 2:05am, Displace 2:06am
10 bbls 400 Psi 2:13am 6.0 bbls/m
20 bbls 480 Psi 2:15am 6.0 bbls/m
30 bbls 480 Psi 2:16am 6.0 bbls/m
40 bbls 320 Psi 2:19am 3.0 bbls/m
47.4 bbls 280 Psi 2:26am 1.0 bbls/m
Bump Plug 420 Psi at 2:26am

USED 10% EXCESS = 326 sks, 73.73 bbls Slurry

12 bbls Slurry to the P.T

[Signature]
AUTHORIZATION TO PROCEED

WSS

TITLE

1-11-13

DATE

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.