



Bison Oil Well Cementing Single Cement Surface Pipe

Invoice # 12727
API# 445564
Foreman: monte

Customer: encana
Well Name: state 3b-16h

County: Weld County
State: Colorado
Sec: 16
Twp: 3n
Range: 68w

Consultant: chris
Rig Name & Number: h & p 278
Distance To Location: 21.3
Units On Location: 3106-3212
Time Requested: 500pm
Time Arrived On Location: 500
Time Left Location: 900

WELL DATA

Casing Size OD (in) : 9.6250
Casing Weight (lb) : 40
Casing Depth (ft.) : 876
Total Depth (ft) : 890
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 108
Conductor ID : 15.5
Shoe Joint Length (ft) : 44
Landing Joint (ft) :

Max Rate:
Max Pressure:

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack: 5.89
% Excess: 30%
Displacement Fluid lb/gal:
BBL to Pit:
Fluid Ahead (bbls):
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
10 fresh 10 dye 10 fresh

Casing ID

8.835

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.73 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)
cuft of Conductor 86.95 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X
(Conductor Length ft)
cuft of Casing 240.52 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing
Depth - Conductor Length)
Total Slurry Volume 346.20 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)
bbls of Slurry 80.16 bbls
(Total Slurry Volume) X (.1781) X (% Excess Cement)
Sacks Needed 354 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)
Mix Water 49.70 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 63.09 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe
Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 691.69 PSI

Pressure of the fluids inside casing

Displacement: #N/A psi

Shoe Joint: 34.74 psi

Total #N/A psi

Differential Pressure: #N/A psi

Collapse PSI: 2570.00 psi

Burst PSI: 3950.00 psi

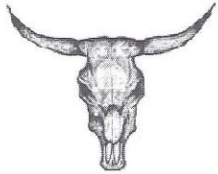
Total Water Needed: 69.70 bbls

X
Authorization To Proceed

Customers hereby acknowledges and specifically agrees to the terms and condition on this work order, including, without limitation, the provisions on this work order.

BISON OIL WELL CEMENTING, INC.

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Denver, Colorado 80206
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INVOICE #
LOCATION
FOREMAN

12727
3245
route

TREATMENT REPORT

DATE	WELL NAME	SECTION	TWP	RGE	COUNTY
10-22-13	State 3B-16H	16	3N	68W	Weld
BILL TO		CONSULTANT			
Encang		Chris			
OWNER		RIG NAME & NUMBER			
		H&P 278			
MAILING ADDRESS		DISTANCE TO LOCATION		UNITS ON LOCTION	
		21.1		3106-3212	
CITY		TIME REQUESTED		TIME ARRIVED ON LOCATION	
		500pm		500pm	
STATE, ZIP		TIME LEFT LOCATION			
WELL DATA			Cement Makeup		
HOLE SIZE	TUBING SIZE	PERFORATIONS	Cement Blend		
12 1/4			BFN # 3090 BCC-1.25/6 BFLA-1		
			Cement - Specs	lbs	Yield
				15.2	1.27
			Water Requirements		
			5.89		
TOTAL DEPTH	TUBING DEPTH	SHOTS/FT	Annulus Factor		
890			.3131		
CASING SIZE	TUBING WEIGHT	OPEN HOLE	Capacity Factor		
9 5/8			.0758		
CASING DEPTH	TUBING CONDITION	TREATMENT VIA	TYPE OF TREATMENT		
876			<input checked="" type="checkbox"/> Surface Pipe <input type="checkbox"/> Production <input type="checkbox"/> Squeeze <input type="checkbox"/> MISC Pump <input type="checkbox"/> P&A		
CASING WEIGHT	PACKER DEPTH		HYD HHP = RATE X PRESSURE / 40.8		
40					
CASING CONDITION	good				
Max Rate					
Max Pressure					
			% Excess	3090	
			BBL to Pit	21	

DESCRIPTION OF JOB EVENTS

safety meeting MTRU Pressure Test Per Company man circulate 30 bbls Ahead with Dye in 2nd 10 mix + pump 354 shs at 30% excess drop plug + Displace 3.09 bbls H2O Bump Plug 150 psf above 1st pressure Hold 5 min Release Pressure wash up Rig down

X Chris Hertz
Authorization To Proceed

Title

X
Date