



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 6/21/2014

Invoice #: 12072

API#

Foreman: JASON

Customer: BILL BARRETT

Well Name: ANSCHUTZ STATE 5-61-19-6457BHZ

County: Weld County

State: Colorado

Sec:

Twp:

Range:

Consultant: CASEY

Rig Name & Number: MAJORS 43

Distance To Location: 45

Units On Location: 4024-3106, 4031-3203

Time Requested: 2300

Time Arrived On Location: 2030

Time Left Location: 200

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 797
Total Depth (ft) : 800
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) :
Conductor ID :
Shoe Joint Length (ft) : 36
Landing Joint (ft) :

Max Rate: 7

Max Pressure: 2500

Cement Data

Cement Name: BFN III
Cement Density (lb/gal) : 15.2
Cement Yield (cuft) : 1.27
Gallons Per Sack: 5.89
% Excess: 10%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 6.0
Fluid Ahead (bbls): 20.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

20 BBL H2O+KCL+DYE IN 1ST 10

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 15.41 cuft

(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 0.00 cuft

(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 428.31 cuft

(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 443.72 cuft

(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 78.9 86.93 bbls

(Total Slurry Volume) X (.1781) X (% Excess Cement)

Sacks Needed 349 sk

(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 49.00 bbls

(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 58.85 bbls

(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 629.07 PSI

Pressure of the fluids inside casing

Displacement: 328.21 psi

Shoe Joint: 28.04 psi

Total 356.25 psi

Differential Pressure: 272.82 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 147.84 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
Single Cement Surface Pipe**

Customer
Well Name

BILL BARRETT
ANSCHUTZ STATE 5-61-19-6457BHZ

INVOICE #
LOCATION
FOREMAN
Date

12072
Weld County
JASON
6/21/2014

Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting MIRU CIRCULATE Drop Plug 51 M & P Time 0021-0050 % Excess Mixed bbls Total Sacks bbl Returns Water Temp	2345 2315	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
		BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI	BBLS	Time	PSI
		0	51	0	0			0			0			0		
		10	54	40	10			10			10			10		
		20	56	40	20			20			20			20		
		30	100	150	30			30			30			30		
		40	102	240	40			40			40			40		
		50	105	320	50			50			50			50		
		60	108	330	60			60			60			60		
		70	BUMP	610	70			70			70			70		
		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
		120			120			120			120			120		
		130			130			130			130			130		
		140			140			140			140			140		
		150			150			150			150			150		

Notes:

The day

PUMPED 20 BBL H2O AHEAD, FIRST 10 WITH DYE, MIX AND PUMP 349 SKS AT 15.2, 78.9 BBLS OF SLURRY, RELEASED PRESSURE AND GOT .5 BBL

BACK

X Cesey Jan
Work Preformed

X Corman
Title

X
Date