



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 6/22/2014
Invoice #: 12048
API#
Foreman: Kirk Kallhoff

Customer: bill barrett
Well Name: anschultz state 5-61-19-6457ch2

County: weld
State: Colorado
Sec: 19
Twp: 5n
Range: 61w
Consultant: casey
Rig Name & Number: major 43
Distance To Location: 30
Units On Location: 3103-3205
Time Requested: 300 am
Time Arrived On Location: 200 am
Time Left Location: 7:00 am

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 36.00
Casing Depth (ft) : 791
Total Depth (ft) : 800
Open Hole Diameter (in.) : 13.50
Conductor Length (ft) :
Conductor ID :
Shoe Joint Length (ft) : 43
Landing Joint (ft) : 8

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: 8.3
BBL to Pit:
Fluid Ahead (bbls): 60.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup

Casing ID

8.921

Casing Grade

J-55 only used

Calculated Results

cuft of Shoe 18.66 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 502.56 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 521.22 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 92.83 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 410 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 57.56 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 58.44 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 624.57 PSI

Pressure of the fluids inside casing

Displacement: 322.52 psi

Shoe Joint: 33.95 psi

Total 356.48 psi

Differential Pressure: 268.10 psi

Collapse PSI: 2020.00 psi

Burst PSI: 3520.00 psi

Total Water Needed: 196.00 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
anschultz state 5-61-19-6457ch2

INVOICE #
LOCATION
FOREMAN
Date

12048
weld
Kirk Kallhoff
6/22/2014

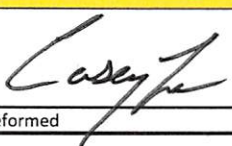
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DESCRIPTION OF JOB EVENTS

		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
Safety Meeting	530am															
MIRU	510am															
CIRCULATE	550am	0	613am	10	0			0			0			0		
Drop Plug		10	615am	60	10			10			10			10		
613 am		20	617am	140	20			20			20			20		
		30	619am	230	30			30			30			30		
		40	621am	300	40			40			40			40		
M & P		50	623am	280	50			50			50			50		
Time	Sacks	60			60			60			60			60		
554 am	352	70			70			70			70			70		
610 am stop		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	10%	120			120			120			120			120		
Mixed bbls	49.3	130			130			130			130			130		
Total Sacks	352	140			140			140			140			140		
bbl Returns	2	150			150			150			150			150		
Water Temp																

Notes:

bumped plug at 627 am 440psi 79.6 bbls slurry

X 
Work Performed

X Com-
Title

X 6-22-14
Date