



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/20/2014
Invoice # 65004
API# 05-123-3809300
Foreman: Lee Sharp

Customer: Peterson Energy Management
Well Name: Grant Hurt 1D-14H-G268

County: Weld
State: Colorado
Sec: 14
Twp: 2N
Range: 68W
Consultant: MIKE Q
Rig Name & Number: PATERSON 326
Distance To Location: 21
Units On Location: 4023-3104 & 4067-3210
Time Requested: 6:00
Time Arrived On Location: 5:09
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 40.00
Casing Depth (ft) : 840
Total Depth (ft) : 890
Open Hole Diameter (in.) : 12.25
Conductor Length (ft) : 80
Conductor ID : 15.25
Shoe Joint Length (ft) : 44
Landing Joint (ft) : 35

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: 50%
Displacement Fluid lb/gal: 8.3
BBL to Pit: 0.0
Fluid Ahead (bbls): 30.0
H2O Wash Up (bbls): 20.0

Spacer Ahead Makeup
10F-10D-10F

Casing ID 8.835 Casing Grade J-55 only used

Calculated Results

cuft of Shoe 18.77 cuft
(Casing ID Squared) X (.005454) X (Shoe Joint ft)

cuft of Conductor 61.05 cuft
(Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)

cuft of Casing 357.02 cuft
(Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)

Total Slurry Volume 436.85 cuft
(cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)

bbls of Slurry 77.80 bbls
(Total Slurry Volume) X (.1781)

Sacks Needed 344 sk
(Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)

Mix Water 48.24 bbls
(Sacks Needed) X (Gallons Per Sack) ÷ 42

Displacement: 63.00 bbls
(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)

Pressure of cement in annulus

Hydrostatic Pressure: 663.26 PSI

Pressure of the fluids inside casing

Displacement: 343.18 psi

Shoe Joint: 34.82 psi

Total 378.00 psi

Differential Pressure: 285.27 psi

Collapse PSI: 2570.00 psi

Burst PSI: 3950.00 psi

Total Water Needed: 161.24 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

Peterson Energy Management
Grant Hurt 1D-14H-G268

INVOICE #
LOCATION
FOREMAN
Date

65004
Weld
Lee Sharp
7/20/2014

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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	7:22															
MIRU	5:40															
CIRCULATE	7:42	0	8:07		0			0			0			0		
Drop Plug		10	8:10	40	10			10			10			10		
8:05		20	8:12	50	20			20			20			20		
		30	8:14	180	30			30			30			30		
		40	8:16	340	40			40			40			40		
M & P		50	8:18	390	50			50			50			50		
Time	Sacks	60	8:21	340	60			60			60			60		
7:48	342	70	8:23	644	70			70			70			70		
		80			80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	49%	120			120			120			120			120		
Mixed bbls	48	130			130			130			130			130		
Total Sacks	342	140			140			140			140			140		
bbl Returns	16	150			150			150			150			150		
Water Temp	60															

Notes:

JOB WENT WELL

X

Work Preformed

X

Title

X

Date