



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 7/18/2014
Invoice # 65000
API# 05-123-3809300
Foreman: Lee Sharp

Customer: Peterson Energy Management

Well Name: Grant Hurt 1H-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: 3104 & 3204
Time Requested: 11:30
Time Arrived On Location: 9:45
Time Left Location:

WELL DATA

Casing Size OD (in) : 9.625
Casing Weight (lb) : 40.00
Casing Depth (ft.) : 832
Total Depth (ft) : 885
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 18.75 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 353.27 cuft

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

Total Slurry Volume 433.07 cuft

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

bbls of Slurry 77.13 bbls

(Total Slurry Volume) X (.1781)

Sacks Needed 341 sk

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

Mix Water 47.82 bbls

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

Displacement: 62.40 bbls

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

Pressure of cement in annulus

Hydrostatic Pressure: 656.95 PSI

Pressure of the fluids inside casing

Displacement: 339.75 psi

Shoe Joint: 34.78 psi

Total 374.53 psi

Differential Pressure: 282.42 psi

Collapse PSI: 2570.00 psi

Burst PSI: 3950.00 psi

Total Water Needed: 160.22 bbls

X

Authorization To Proceed



**Bison Oil Well Cementing
Single Cement Surface Pipe**

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Well Name

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

INVOICE #
LOCATION
FOREMAN
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65000
Weld
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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	4:20															
MIRU	3:00															
CIRCULATE	4:48	0	5:20	0	0			0			0			0		
Drop Plug		10	5:22	55	10			10			10			10		
5:17		20	5:24	80	20			20			20			20		
		30	5:26	205	30			30			30			30		
		40	5:28	370	40			40			40			40		
M & P		50	5:30	345	50			50			50			50		
Time	Sacks	60	5:34	317	60			60			60			60		
4:54	341	70	5:36	600	70			70			70			70		
		80	5:38	1529	80			80			80			80		
		90			90			90			90			90		
		100			100			100			100			100		
		110			110			110			110			110		
% Excess	51%	120			120			120			120			120		
Mixed bbls	48	130			130			130			130			130		
Total Sacks	342	140			140			140			140			140		
bbl Returns	18	150			150			150			150			150		
Water Temp	20															

Notes:

The day JOB WENT WELL, M&P 342 SACKS; PLUG LANDED ON CALCULATED DISPLACEMENT; FINAL LIFT 330 LANDED@610 PSI TEST 1500 FOR 15 MIN

1529PSI RELEASE @ 1423 3/4 BBL BACK

X
Work Preformed

X *Well Site Supervisor*
Title

X *7-18-14*
Date