



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 4/1/2017
 Invoice # 200069
 API# _____
 Foreman: Kirk Kallhoff

Customer: Bill Barrett Corp.

Well Name: crv 5-62-32-6457 b2b

County: Weld
 State: Colorado
 Sec: 32
 Twp: 5n
 Range: 63w

Consultant: casey
 Rig Name & Number: wht mt opp 344
 Distance To Location: 16 miles
 Units On Location: 4028/4024
 Time Requested: 630 am
 Time Arrived On Location: 330 am
 Time Left Location: 8:00 am

WELL DATA	Cement Data
Casing Size OD (in) : <u>9.625</u>	Cement Name: <u>BFN III</u>
Casing Weight (lb) : <u>36.00</u>	Cement Density (lb/gal) : <u>14.2</u>
Casing Depth (ft.) : <u>825</u>	Cement Yield (cuft) : <u>1.49</u>
Total Depth (ft) : <u>822</u>	Gallons Per Sack: <u>7.40</u>
Open Hole Diameter (in.) : <u>12.25</u>	% Excess: <u>20%</u>
Conductor Length (ft) : _____	Displacement Fluid lb/gal: <u>8.3</u>
Conductor ID : _____	BBL to Pit: _____
Shoe Joint Length (ft) : <u>43</u>	Fluid Ahead (bbls): <u>30.0</u> <i>20</i>
Landing Joint (ft) : _____	H2O Wash Up (bbls): <u>10.0</u>
Max Rate: _____	Spacer Ahead Makeup
Max Pressure: _____	h2o

Calculated Results	Displacement: 60.49 bbls
cuft of Shoe <u>18.66</u> cuft (Casing ID Squared) X (.005454) X (Shoe Joint ft)	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
cuft of Conductor <u>0.00</u> cuft (Conductor Width Squared) - (Casing Size OD Squared) X (.005454) X (Conductor Length ft)	Pressure of cement in annulus Hydrostatic Pressure: 608.90 PSI
cuft of Casing <u>310.20</u> cuft (Open Hole Squared) - (Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Pressure of the fluids inside casing Displacement: 337.36 psi Shoe Joint: 31.72 psi Total 369.08 psi
Total Slurry Volume <u>328.86</u> cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Differential Pressure: 239.82 psi
bbls of Slurry <u>58.57</u> bbls (Total Slurry Volume) X (.1781)	Collapse PSI: 2020.00 psi Burst PSI: 3520.00 psi
Sacks Needed <u>221</u> sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Total Water Needed: 139.37 bbls
Mix Water <u>38.89</u> bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	

X *Casey R*
 Authorization To Proceed



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

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Well Name

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crv 5-62-32-6457 b2b

INVOICE #
LOCATION
FOREMAN
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Weld
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DESCRIPTION OF JOB EVENTS

Amount Pumped	Time/Date	Event	Description	Rate	BBLs	Pressure
% Excess 20%	330 am	arived on location				
Mixed bbls 38.8	345 am	rig up				
Total Sacks 220	625 am	jsa				
bbl Returns 4	645 am	test lines	test to 1000 psi	1	1	1000
Water Temp 65	647 am	pump spacer	20 bbls h2o	6	20	150
	650 am	m&p cement	221 sks 14.2 lb 58.5 bbls slurry	6	58.5	250
Notes:	701 am	stop cement				20
	703 am	drop plug				
	703 am	start displacement	60.4 bbls h2o	6	60.4	250
	717 am	bump plug	bumped plug at calcauted 260 psi lift psi	1.5	60.4	630
	720 am	release psi				0
	720 am	end job				
	745 am	rig down				
	800 am	leave location				
		4 BBL Return to Surface				

X Casey Law
Work Preformed

X Coman
Title

X 4-1-17
Date