



# Bison Oil Well Cementing Single Cement Surface Pipe

Date: 5/1/2017  
 Invoice # 900091  
 API# 05-123-44296  
 Foreman: Corey B.

**Customer:** Bill Barrett Corp.

**Well Name:** Kunesmiller 5-61-22/0801B2B

County: Weld  
 State: Colorado  
 Sec: 5N  
 Twp: 61W  
 Range: 21

Consultant: \_\_\_\_\_  
 Rig Name & Number: White Mountain 344  
 Distance To Location: \_\_\_\_\_  
 Units On Location: 4027/3103-4031/4201  
 Time Requested: 100  
 Time Arrived On Location: 2400  
 Time Left Location: \_\_\_\_\_

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>814</u>	Cement Yield (cuft) : <u>1.48</u>
Total Depth (ft) : <u>812</u>	Gallons Per Sack: <u>7.40</u>
Open Hole Diameter (in.) : <u>13.50</u>	% Excess: <u>30%</u>
Conductor Length (ft) : <u>0</u>	Displacement Fluid lb/gal: <u>8.3</u>
Conductor ID : <u>19.166</u>	BBL to Pit:
Shoe Joint Length (ft) : <u>44</u>	Fluid Ahead (bbls): <u>20.0</u>
Landing Joint (ft) : <u>0</u>	H2O Wash Up (bbls): <u>20.0</u>
Max Rate: <u>6</u>	Spacer Ahead Makeup
Max Pressure: <u>1000</u>	20 bbl with die in 1st 10

Calculated Results	Displacement: <b>59.57 bbls</b>
<b>cuft of Shoe</b> <u>18.88</u> <b>cuft</b> (Casing ID Squared) X (.005454) X (Shoe Joint ft)	(Casing ID Squared) X (.0009714) X (Casing Depth + Landing Joint - Shoe Joint)
<b>cuft of Conductor</b> <u>0.00</u> <b>cuft</b> (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	<b>Pressure of cement in annulus</b>
<b>cuft of Casing</b> <u>517.17</u> <b>cuft</b> (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length )	<b>Hydrostatic Pressure: 600.49 PSI</b>
<b>Total Slurry Volume</b> <u>536.05</u> <b>cuft</b> (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	<b>Pressure of the fluids inside casing</b>
<b>bbls of Slurry</b> <u>95.47</u> <b>bbls</b> (Total Slurry Volume) X (.1781)	<b>Displacement: 332.23 psi</b>
<b>Sacks Needed</b> <u>362</u> <b>sk</b> (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	<b>Shoe Joint: 32.09 psi</b>
<b>Mix Water</b> <u>63.82</u> <b>bbls</b> (Sacks Needed) X (Gallons Per Sack) ÷ 42	<b>Total 364.31 psi</b>
	<b>Differential Pressure: 236.17 psi</b>
	<b>Collapse PSI: 2020.00 psi</b>
	<b>Burst PSI: 3520.00 psi</b>
	<b>Total Water Needed: 163.38 bbls</b>

X Corey B.  
 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 Corp.
Kunesmiller 5-61-22/0801B2B

INVOICE #  
LOCATION  
FOREMAN  
Date

900091
Weld
Corey B.
5/1/2017

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**DESCRIPTION OF JOB EVENTS**

Amount Pumped	Time/Date	Event	Description	Rate	BBLs	Pressure
% Excess 30%						
Mixed bbls 63.83	1200AM	Arrive on location	Running Casing			
Total Sacks 362	1205AM	Bison Safety Meeting				
bbl Returns 18	1210AM	Rig up				
Water Temp 57						
	100	Safety Meeting for Job	Bison and Rig Crew			
Notes:	114	Start Job				
	116	Test Lines				
	118	Spacer	Water with die in 1st ten	4.5	20	20
	122	Cement	14.2ppg	5	96	40
	142	ShutDown				
	143	Drop Plug	Preloaded in Plug Container			
	145	Start Displacement		5	40	200
	200	Bump Plug	400 over Final lift pressure (760 PSI)	2	60	190
	202	Check Floats	with 1/2 bbl back			
	205	End Job				
	210	Rig Down				
	245	Leave Location				
		18 bbl cement to surface				

X

*Casey Jan*

Work Performed

X

*CO mas*

Title

X

Date