



Bison Oil Well Cementing Single Cement Surface Pipe

Date: 12/15/2017
Invoice #: 900223
API#: 05-123-45706
Foreman: Corey Barras

Customer: Bill Barrett Corp.
Well Name: Anschutz Williams 5-61-27-4841B

County: Weld
State: Colorado
Sec: 27
Twp: 5N
Range: 61W
Consultant: Matt
Rig Name & Number: Cade 24
Distance To Location: 36
Units On Location: 4024/3103 -4034/3213
Time Requested: 100
Time Arrived On Location: 2350
Time Left Location: 345

WELL DATA	Cement Data
Casing Size OD (in) : 9.625	Cement Name: BFN III
Casing Weight (lb) : 36.00	Cement Density (lb/gal) : 14.2
Casing Depth (ft.) : 842	Cement Yield (cuft) : 1.48
Total Depth (ft) : 842	Gallons Per Sack: 7.49
Open Hole Diameter (in.) : 13.50	% Excess: 22%
Conductor Length (ft) : 80	Displacement Fluid lb/gal: 8.3
Conductor ID : 15.25	BBL to Pit: 10.0
Shoe Joint Length (ft) : 44	Fluid Ahead (bbls): 20.0
Landing Joint (ft) : 0	H2O Wash Up (bbls): 20.0
Max Rate: 8	Spacer Ahead Makeup
Max Pressure: 2500	20 BBL with die in 2nd 10

Casing ID	8.921	Casing Grade	J-55 only used
Calculated Results	Displacement:	62.00	bbls
cuft of Shoe 19.10 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 61.05 cuft (Conductor Width Squared) -(Casing Size OD Squared) X (.005454) X (Conductor Length ft)	Pressure of cement in annulus		
cuft of Casing 456.73 cuft (Open Hole Squared)-(Casing Size Squared) X (.005454) X (Casing Depth - Conductor Length)	Hydrostatic Pressure:	624.09	PSI
Total Slurry Volume 536.88 cuft (cuft of Shoe) + (cuft of Conductor) + (cuft of Casing)	Pressure of the fluids inside casing		
bbls of Slurry 95.62 bbls (Total Slurry Volume) X (.1781)	Displacement:	345.81	psi
Sacks Needed 363 sk (Total Slurry Volume) ÷ (Cement Yield) X (% Excess Cement)	Shoe Joint:	32.46	psi
Mix Water 64.69 bbls (Sacks Needed) X (Gallons Per Sack) ÷ 42	Total	378.27	psi
	Differential Pressure:	245.83	psi
	Collapse PSI:	2020.00	psi
	Burst PSI:	3520.00	psi
	Total Water Needed:	166.69	bbls

X

Authorization To Proceed

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LOCATION
FOREMAN
Date

900223
Weld
Corey Barras
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DESCRIPTION OF JOB EVENTS

[illegible]

X

Work Preformed

[Signature]

X

Title

[Signature] C. R. R. R.

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Date _____

12.15.17